

In the Matter of: )  
 ) Docket No.: R2006-1  
POSTAL RATE AND FEE CHANGES )

Date: August 16, 2006  
Place: Washington, D.C.  
Pages: 2369 through 2720

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Postal Rate Commission  
901 New York Avenue, N.W.  
Washington, D.C.

The above-entitled matter came on for hearing pursuant to notice, at 9:32 a.m.

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HON. DAWN A. TISDALE, VICE-CHAIRMAN  
HON. TONY HAMMOND, COMMISSIONER  
HON. RUTH Y. GOLDWAY, COMMISSIONER

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C O N T E N T S

## WITNESSES APPEARING:

MARTIN CZIGLER

ELIANE VAN-TY-SMITH (Not Present)

A. THOMAS BOZZO

<u>WITNESSES:</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>	<u>VOIR DIRE</u>
Martin Czigler	2374	--	2439	--	--
by Ms. Rush	--	2428	--	--	--
A. Thomas Bozzo	2477	--	--	--	--
by Mr. Olson	--	2685	--	--	--
by Mr. McKeever	--	2710	--	--	--

<u>RULINGS</u>	<u>PAGE</u>
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Ruling setting dates for designating institutional responses and filing transcript corrections	2373

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Corrected designated written cross-examination of Martin Czigler, USPS-T-1	2380
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E X H I B I T S

<u>EXHIBITS AND/OR TESTIMONY</u>	<u>IDENTIFIED</u>	<u>RECEIVED</u>
Corrected direct testimony of Martin Czigler on behalf of the United States Postal Service, USPS-T-1	2374	2376
Response of Witness Czigler to PSA interrogatory redirected from Witness Smith, PSA/USPS-T-13-1	2377	2377
Corrected designated written cross-examination of Martin Czigler, USPS-T-1	2379	2379
Corrected direct testimony of Eliane Van-Ty-Smith on behalf of the United States Postal Service, USPS-T-11	2441	2441
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Corrected direct testimony of A. Thomas Bozzo on behalf of the United States Postal Service, USPS-T-12	2477	2479
Response of Witness Bozzo to Presiding Officer's Information Request, POIR No. 10, Question 6	2480	2480
Corrected designated written cross-examination of A. Thomas Bozzo, USPS-T-12	2496	2496

(9:32 a.m.)

CHAIRMAN OMAS: Good morning. Today we continue hearings to receive the testimony of Postal Service witnesses in support of Docket No. R2006-1, Request for Rate and Fee Changes.

I have some announcements. This morning I signed or issued two Presiding Officer Rulings. One ruling cancels Monday's hearing. Witnesses scheduled to present testimony on Monday, August 21, are rescheduled for August 22. Again, I repeat. There will be no hearings on Monday, August 21. The witnesses have been rescheduled for Tuesday, August 22.

I also set dates for designating institutional responses and filing transcript corrections.

Does anyone have any procedural matters to discuss at this point this morning?

(No response.)

CHAIRMAN OMAS: Three witnesses are scheduled to appear today. They are Witnesses Czigler, Van-Ty-Smith and Bozzo.

Mr. Hollies, would you like to identify your first witness?

1                   MR. HOLLIES: Good morning. Thank you, Mr.  
2 Chairman. The Postal Service calls Dr. Martin  
3 Czigler.

4                   CHAIRMAN OMAS: Dr. Czigler, would you raise  
5 your right hand?

6                   Whereupon,

7                   MARTIN CZIGLER

8                   having been duly sworn, was called as a  
9 witness and was examined and testified as follows:

10                  CHAIRMAN OMAS: Please be seated.

11   (The document referred to was  
12   marked for identification as  
13   Exhibit No. USPS-T-1.)

14                  DIRECT EXAMINATION

15                  BY MR. HOLLIES:

16                  Q     Good morning, Dr. Czigler. Before you are  
17 two copies of a document that is marked for  
18 identification as USPS-T-1. Do you recognize that  
19 document?

20                  A     I do.

21                  Q     Could you press the button on your  
22 microphone so that the light is bright?

23                  A     I do.

24                  Q     Thank you. Was that document prepared by  
25 you or under your direction?

1           A     Yes, it was.

2           Q     Is that your testimony, your direct  
3 testimony in this docket?

4           A     Yes, it is.

5           Q     And were you to testify orally today would  
6 your testimony be the same?

7           A     Yes, it would be.

8           Q     Have you any errata or corrections in that  
9 document?

10          A     No, I do not.

11               MR. HOLLIES:  Mr. Chairman, the Postal  
12 Service therefore moves that the testimony of Dr.  
13 Martin Czigler be admitted into evidence in this  
14 proceeding, and I am prepared to hand two copies to  
15 the court reporter.

16               CHAIRMAN OMAS:  Is there any objection?

17               (No response.)

18               CHAIRMAN OMAS:  Hearing none, I will direct  
19 counsel to provide the reporter with two copies of the  
20 corrected direct testimony of Martin Czigler.

21               That testimony is received into evidence.  
22 However, as is our practice, it will not be  
23 transcribed.

24     //

25     //



1                               (The document referred to,  
2                               previously identified as  
3                               Exhibit No. USPS-T-1, was  
4                               received in evidence.)

5               CHAIRMAN OMAS: Mr. Czigler, have you had an  
6               opportunity to examine the packet of designated  
7               written cross-examination that was made available to  
8               you this morning in the hearing room?

9               THE WITNESS: Yes, I have.

10              CHAIRMAN OMAS: If those questions that were  
11              contained in that packet were posed to you orally  
12              today would your answers be the same as those you  
13              previously provided?

14              THE WITNESS: Yes, they would be, although I  
15              have three typographical corrections I'd like to make.

16              In the response to NNA/USPS-T-1-27, in the  
17              second bullet the word "or" should be changed to  
18              "nor". In the third bullet, the word "the" is  
19              duplicated. In the fourth bullet, again the word "or"  
20              should be changed to "nor".

21              CHAIRMAN OMAS: Fine. There is also the  
22              following interrogatory responses that I would like to  
23              enter into the evidentiary record at this time. It is  
24              PSA/USPS-T-13-1, redirected to Witness Czigler.

25              Mr. Czigler, if you were asked to respond

1 orally to these questions today would your answers be  
2 the same as those you previously provided in writing?

3 THE WITNESS: Yes, they would be.

4 CHAIRMAN OMAS: I am providing two copies of  
5 the answers to the reporter and direct that they be  
6 submitted into evidence and transcribed.

7 (The document referred to was  
8 marked for identification as  
9 Exhibit No. PSA/USPS-T-13-1  
10 and was received in  
11 evidence.)

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**RESPONSE OF POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF PARCEL SHIPPERS ASSOCIATION,  
REDIRECTED FROM WITNESS MARC SMITH**

**PSA/USPS-T13-1.** Please refer to Attachment 14 of your testimony, which contains Test Year mail processing unit costs by shape and Table 1 below.

**Table 1. Test Year Mail Processing Unit Costs for Parcels**

<b>Mail Category</b>	<b>Unit Costs (in Cents)</b>
First-Class Single Piece Letters	102.49
First-Class Presort Letters	303.81
Periodicals Within-County	304.70
Periodicals Outside County	2,610.44
Standard Mail Enhanced Carrier Route	2,450.04
Standard Mail Regular	59.60
Parcel Post	125.92
Bound Printed Matter	62.28
Media Mail	111.67

\* \* \*

(b) Please provide the coefficient of variation for every figure in Table 1.

**RESPONSE:**

Approximate CVs are available for the mail processing labor costs in the base year, estimated using the Generalized Variance Function approach. These are a lower bound for the CVs for test year mail processing unit costs.

<b>Mail Category</b>	<b>Approx. CV for Mail Processing</b>
First-Class Single Piece Letters	2.6%
First-Class Presort Letters	11.4%
Periodicals Within-County	128.7%
Periodicals Out side County	8.2%
Standard Mail Enhanced Carrier Route	13.4%
Standard Mail Regular	2.8%
Parcel Post	2.7%
Bound Printed Matter	4.4%
Media Mail	4.6%

1           CHAIRMAN OMAS:  Would you please provide the  
2   reporter with two copies of the corrected written  
3   cross-examination?  It will be transmitted and  
4   transcribed into the record.

5           MR. HOLLIES:  Thank you, Mr. Chairman.  I  
6   have provided to the court reporter the corrected  
7   responses to the designated written cross-examination.

8                               (The document referred to was  
9                               marked for identification as  
10                              Exhibit No. USPS-T-1 and was  
11                              received in evidence.)

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BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes, 2006

Docket No. R2006-1

DESIGNATION OF WRITTEN CROSS-EXAMINATION  
OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER  
(USPS-T-1)

Party

Interrogatories

Advo, Inc.

ADVO/USPS-T1-1-3  
VP/USPS-T11-2-3, 4b-c redirected to T1

American Bankers Association and  
National Association of Presort  
Mailers

MMA/USPS-T1-1

Major Mailers Association

MMA/USPS-T1-1

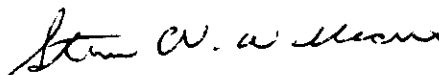
Postal Rate Commission

NNA/USPS-T1-1-34  
NNA/USPS-T46-19 redirected to T1

Valpak Direct Marketing Systems,  
Inc. and Valpak Dealers'  
Association Inc.

VP/USPS-T11-1-3, 4b-c, 5 redirected to T1

Respectfully submitted,



Steven W. Williams  
Secretary

INTERROGATORY RESPONSES OF  
UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER (T-1)  
DESIGNATED AS WRITTEN CROSS-EXAMINATION

<u>Interrogatory</u>	<u>Designating Parties</u>
ADVO/USPS-T1-1	Advo
ADVO/USPS-T1-2	Advo
ADVO/USPS-T1-3	Advo
MMA/USPS-T1-1	ABA-NAPM, MMA
NNA/USPS-T1-1	PRC
NNA/USPS-T1-2	PRC
NNA/USPS-T1-3	PRC
NNA/USPS-T1-4	PRC
NNA/USPS-T1-5	PRC
NNA/USPS-T1-6	PRC
NNA/USPS-T1-7	PRC
NNA/USPS-T1-8	PRC
NNA/USPS-T1-9	PRC
NNA/USPS-T1-10	PRC
NNA/USPS-T1-11	PRC
NNA/USPS-T1-12	PRC
NNA/USPS-T1-13	PRC
NNA/USPS-T1-14	PRC
NNA/USPS-T1-15	PRC
NNA/USPS-T1-16	PRC
NNA/USPS-T1-17	PRC
NNA/USPS-T1-18	PRC
NNA/USPS-T1-19	PRC
NNA/USPS-T1-20	PRC
NNA/USPS-T1-21	PRC
NNA/USPS-T1-22	PRC
NNA/USPS-T1-23	PRC
NNA/USPS-T1-24	PRC
NNA/USPS-T1-25	PRC
NNA/USPS-T1-26	PRC
NNA/USPS-T1-27	PRC
NNA/USPS-T1-28	PRC

Interrogatory

NNA/USPS-T1-29

NNA/USPS-T1-30

NNA/USPS-T1-31

NNA/USPS-T1-32

NNA/USPS-T1-33

NNA/USPS-T1-34

NNA/USPS-T46-19 redirected to T1

VP/USPS-T11-1 redirected to T1

VP/USPS-T11-2 redirected to T1

VP/USPS-T11-3 redirected to T1

VP/USPS-T11-4b redirected to T1

VP/USPS-T11-4c redirected to T1

VP/USPS-T11-5 redirected to T1

Designating Parties

PRC

PRC

PRC

PRC

PRC

PRC

PRC

Valpak

Advo, Valpak

Advo, Valpak

Advo, Valpak

Advo, Valpak

Valpak

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF ADVO**

**ADVO/USPS-T1-1.** Please provide definitions for the following, including an explanation of the type of mail typically found in them:

- (a) Tall pallet boxes
- (b) Westpaks
- (c) Postalpaks

**RESPONSE:**

Tall pallet boxes are pallet boxes that are so tall that the data collector cannot view their contents. Postal Paks are a type of reusable tall pallet box that can be latched to their underlying pallet. WestPaks are a type of reusable short pallet box that can be latched to their underlying pallet. My understanding is that many types of mail and mail containers can be found in all of these types of pallet boxes, including NMOs, sacks, trays and tubs.



**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF ADVO**

**ADVO/USPS-T1-2.** With respect to the pieces within a container handled by a clerk or mail handler that are considered countable (answers yes to Q24b):

- (a) Does the tally taker then proceed to Q24? If so, does this mean that, if the container (for example a hamper) includes some smaller containers (e.g., trays, tubs, sacks), all the mail in the container is counted but the number and type of smaller containers included within the single larger container are not counted? Please explain.
- (b) Are the instructions in Q23 (on mail piece characteristics other than shape and subclass) used in some way when responding to Q24? If so, please explain.

**RESPONSE:**

- a) Yes, the question following Q24b is Q24. All of the mail in the container is counted, including the mail in any containers inside. Note that the IOCS-CODES data entry software does not ask Q24b or Q24 for wheeled containers, such as hampers in the example.
- b) No.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF ADVO**

**ADVO/USPS-T1-3.** In Q21G1, the tally taker is to identify the percentage of container space filled with the various options.

- (a) For bundle(s) (option f), is there a subsequent shape identified for those bundles?
- (b) If Q21G1 is intended to identify what a particular container includes, why are pallets (option k) and con-cons (option g) included as options?

**RESPONSE:**

- a) No.
- b) Many container types, including Air Cargo containers, BMC-OTRs, or nutting trucks, can hold other containers such as pallets or con-cons.

**RESPONSE OF POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF MAJOR MAILERS ASSOCIATION**

**MMA/USPS-T1-1.**

On page 6 of his direct testimony, USPS witness Abdirahman claims that separate CRA costs for First-Class Automation and Nonautomation letters are no longer provided by the In-Office Cost System (IOCS).

A. Please indicate where in your testimony you describe the changes that have been effected such that the IOCS no longer differentiates between First-Class Automation and Nonautomation letters. If no explanation is available, please explain the reason for this omission.

B. If there is no explanation in your testimony, please describe the circumstances surrounding this change and provide all documents relating to this change.

**RESPONSE:**

A. In-Office Cost System (IOCS) continues to provide data on automation and non-automation pieces as it has in the past. However, as discussed by witness Abdirahman (R2006-1/USPS-T-22, pp. 5-6) and witness Smith (R2006-1/USPS-T-13, pp. 35-36), this information is not used.

B. N/A

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-1.** On page 5 of your testimony (USPS-T-1) at lines 4-6, you state that "The amount of variation one could expect due to sampling alone is quantified by the coefficient of variation (CV)." With respect to this statement, please define what you mean by "amount of variation" in this statement and explain fully how this "amount of variation" is quantified in a CV.

**RESPONSE:**

The "amount of variation" is also known as sampling variation or sampling variance. The estimated sampling variance refers to the average of the squared deviation of the mean of the sample observations from the sample observation itself. Slightly different estimates could have been obtained if different samples had been taken during FY05 by, for example, using a different random number seed to determine which employees would be sampled. This sampling variance is estimated in the method described in USPS-LR-L-9, Appendix I, "Coefficients of Variation for IOCS-Based Cost Estimates". The coefficient of variation (CV) itself is defined as the ratio of the standard error of the estimate divided by the estimate itself. See Cochran, William G., Sampling Techniques (John Wiley and Sons, 1977), p. 54.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-2.** On page 5 of your testimony (USPS-T-1) at lines 4-6, you state that "The amount of variation one could expect due to sampling alone is quantified by the coefficient of variation (CV)." With respect to this statement, please confirm that, *all else equal*, statistical estimates that are based on samples with a higher amount of variation (as measured by the CV) are less reliable than statistical estimates that are based on samples with a lower amount of variation (as measured by the CV). Explain fully any answer other than a confirmation.

**RESPONSE:**

Confirmed that, all else equal, estimates having higher variation are less precise than estimates having lower variation.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-3.** On page 5 of your testimony (USPS-T-1) at line 6, you state that "CVs can be used to produce confidence intervals for estimates." With respect to this statement, please explain fully why you have used CVs to produce confidence intervals for the cost data by subclass that is shown in Tables, 1, 2 and 3 of USPS-T-1.

**RESPONSE:**

Confidence intervals are standard measures used to represent sampling variation.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-4.** On page 5 of your testimony (USPS-T-1) at line 6, you state that "CVs can be used to produce confidence intervals for estimates." With respect to this statement, please explain fully why you have estimated 95% confidence intervals for the cost estimates by subclass that are shown in Tables, 1, 2 and 3 of USPS-T-1.

**RESPONSE:**

95 percent confidence intervals are a standard measure of reliability. If the full IOCS sampling procedure had been carried out twenty times in FY05, for example, we would expect that the true costs would fall outside the twenty confidence intervals one time, on average.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-5.** On page 12 of your testimony (USPS-T-1) at lines 10-11, you state that, "Strong evidence of data quality improvement for IOCS comes from decreases in the coefficients of variation (CV) that measure the precision of the estimates." *With respect to this statement, please explain fully why decreases in coefficients of variation provide "strong evidence of data quality improvement."*

**RESPONSE:**

Decreases in CVs imply that the sampling variation has been reduced and therefore that the estimates are more precise.



**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-6.** On page 12 of your testimony (USPS-T-1) at lines 10-11, you state that, "*Strong evidence of data quality improvement for IOCS comes from decreases in the coefficients of variation (CV) that measure the precision of the estimates.*" With respect to this statement, please define the term "precision" of the IOCS cost estimates as used in this sentence and explain how the coefficient of variation measures the "precision" of these estimates.

**RESPONSE:**

Precision refers to the size of deviations from the mean obtained by repeated application of the sampling procedure. See Cochran, William G., Sampling Techniques (John Wiley and Sons, 1977), p.16. The coefficient of variation is a relative measure of precision, computed as the ratio of the standard error of the estimate divided by the estimate itself.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-7.** In Table 1 on page 14 of your testimony (USPS-T-1) you show CVs by subclass for Cost Segment 3.1. The CV for Within County Periodicals is reported as 11.58% while the CV for Outside County Periodicals is reported as 1.56%. Please explain fully why the Within County CV shown in Table 1 is so much higher than the Outside County CV reported in the same table.

**RESPONSE:**

The reason that the CV for Within County Periodicals is higher than for Outside County is that the estimated level of costs is less. The estimated cost for Within County periodicals is \$19.806M, only 0.16% of total costs in Cost Segment 3.1, while Outside County, at \$869.487M and 6.84% of total costs, is over 40 times larger. In simple random sampling systems that measure proportions, the CV can be estimated as

$$CV(p) = \frac{\hat{\sigma}_p}{p} = \frac{\sqrt{\frac{p(1-p)}{n-1}}}{p} = \sqrt{\frac{1-p}{(n-1)p}},$$

where  $p$  is the estimate of the proportion,  $\sigma_p$  is the standard error of the estimate, and  $n$  is the sample size. If IOCS were a simple random sampling system, then the ratio of the CVs of Within County to Outside County using the formula above would be 6.9. The ratio of the reported CVs is 7.4.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-8.** In Table 1 on page 15 of your testimony (USPS-T-1) you show 95% Confidence Levels by subclass for Cost Segment 3.1. The 95% Upper Limit for Within County Periodicals is reported as \$24,422,000, while the 95% Lower Limit for Within County Periodicals is reported as \$15,429,000. Please confirm, that by this estimate, the USPS is 95% confident that in BY 2005, the actual cost (in Cost Segment 3.1) for Within County Periodicals lies somewhere between \$15.4 million and \$24.4 million. Please explain fully any answer other than a confirmation.

**RESPONSE:**

Confirmed. The 95 percent confidence interval for the cost estimate is \$15,429,000 to \$24,422,000.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-9.** In Table 2 on page 15 of your testimony (USPS-T-1) you show CVs by subclass for Cost Segment 6.1. The CV for Within County Periodicals is reported as 11.66% while the CV for Outside County Periodicals is reported as 2.65%. Please explain fully why the Within County CV shown in Table 2 is so much higher than the Outside County CV reported in the same table.

**RESPONSE:**

See the response to question NNA/USPS-T1-7. For Cost Segment 6.1, the estimated costs for Within County and Outside County Periodicals are 0.3 percent and 7.8 percent of the total costs respectively. If IOCS were a simple random sampling system, then the ratio of the estimated CVs of Within County to Outside County would be 5.3. The ratio of the reported CVs is 4.4.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO INTERROGATORY OF  
NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-10.** In Table 2 on page 15 of your testimony (USPS-T-1) you show 95% Confidence Levels by subclass for Cost Segment 6.1. The 95% Upper Limit for Within County Periodicals is reported as \$11,905,000, while the 95% Lower Limit for Within County Periodicals is reported as \$7,480,000. Please confirm, that by this estimate, the USPS is 95% confident that in BY 2005, the actual cost (in Cost Segment 6.1) for Within County Periodicals lies somewhere between \$11.9 million and \$7.5 million. Please explain fully any answer other than a confirmation.

**RESPONSE:**

Confirmed. The 95 percent confidence interval for the cost estimate is \$7,480,000 to \$11,905,000.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-11.** At page 4 of your testimony, at line 6, you state that "Appendix D (of USPS-LR-L-9) documents the Within County Periodicals' edits..." In Appendix D of USPS-LR-L-9, you explain that the purpose of Appendix D "is to describe the process of verifying IOCS Within-County Periodicals tallies." Please explain fully, why it was necessary in this rate proceeding to verify IOCS Within-County tallies in the ways that are set forth in Appendix D. In addition, please explain why the USPS did not find it necessary to use similar methods to verify IOCS tallies for other sub-classes in this case.

**RESPONSE:**

The Within-County Periodicals edit checks are necessary since it is not possible to distinguish Within-County from Outside-County Periodicals solely by observation of markings and/or other physical characteristics of the mailpiece. Other subclasses of mail can be successfully identified based solely on observable mailpiece characteristics. Please see also Docket No. R94-1, USPS-ST-12; PRC Op., Docket No. R94-1 at V-72 to V-73.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-12.** At page 4 of your testimony, at line 6, you state that "Appendix D (of USPS-LR-L-9) documents the Within County Periodicals' edits..." In Appendix D of USPS-LR-L-9, at page D-3, you state "The manual check of IOCS Periodicals tallies uses a variety of criteria to determine the appropriate subclass." With respect to each criterion used in the manual checking process to determine the appropriate subclass, please explain why each criterion was needed.

**RESPONSE:**

The manual checks are needed to determine whether a Periodicals mailpiece is consistent with the Within-County eligibility criteria from DMM 707 11.3.1 when mailing statement data indicating whether Within-County copies of the title were mailed are not available .

The specific criteria and reasons are:

- i) Destination county different from origin county: piece ineligible for Within-County rates;
- ii) Circulation less than 10,000 copies: DMM 707 11.3.1 eligibility criterion;
- iii) Local appeal of publication content: indicates probability of meeting 50 percent Within-County circulation requirement for pieces with circulation greater than 10,000 copies;
- iv) Title identified as Within-County during the previous two years: assume eligibility status of title is unchanged.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-13.** At page 4 of your testimony, at line 6, you state that "Appendix D (of USPS-LR-L-9) documents the Within County Periodicals' edits..." In Appendix D of USPS-LR-L-9, at page D-3, you state "For FY 2005, 174 out of a total of 7,671 Periodicals tallies required manual checks." With respect to this statement, please explain fully how it was determined that exactly 174 Periodicals tallies required manual checks while 7,497 Periodicals tallies did not require manual checks.

**RESPONSE:**

The subclass of the 174 tallies could not be resolved automatically by the programs described in USPS-LR-L-9, Appendix D.



**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-14.** At page 4 of your testimony, at line 6, you state that "Appendix D (of USPS-LR-L-9) documents the Within County Periodicals' edits..." In Appendix D of USPS-LR-L-9, at page D-3, you state "For FY 2005, 174 out of a total of 7,671 Periodicals tallies required manual checks." With respect to this statement, please confirm that these 7,671 tallies represent the final number of tallies for all Periodicals in BY 2005 that was [sic] used by the Postal Service to determine IOCS-based cost calculations for Periodicals in this case. For any answer, other than a confirmation, please provide the correct final Periodicals tally count and an explanation as to how to derive that count using the IOCS Base Year 2005 data that was included in USPS-LR-L-9.

**RESPONSE:**

Not confirmed. There are 7,681 direct Periodical tallies. Ten tallies did not initially receive the additional checking described in LR-L-9, Appendix D. However, subsequent checking of the ten generated no subclass changes.

The direct Periodical tallies can be identified by selecting those records from the IOCS dataset where the activity code f262 is one of the Periodical activity codes (1211, 1212, 2211, 2212, 3211, 3212, 4211, 4212) and the record is not derived from a mixed-mail tally (Q24 = '--'). For example, the following SAS code counts the number of direct Periodical tallies:

```
libname IOCSDat "E:\IOCSData";
title 'Count Direct Periodical Tallies';
proc sql;
    select count(f262) as N
    from IOCSDat.prcsas05
    where substr(f262,2,2) = '21'
        and '1' <= substr(f262,1,1) <= '4'
        and Q24 = '--';
quit;
```

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-15.** In Appendix D of the IOCS Computer and Statistical Documentation provided in USPS-LR-L-9, at page D-11, you list the following output files; **hqtal2005new.dat, tally\_change.05, changed.cts, summ2005.rpt and summ2005.csv**. Please provide each of these output files in electronic form and furnish all results produced by or in each of these files in both electronic and hardcopy form.

**RESPONSE:**

The requested files are provided in Library Reference USPS-LR-L-156, "Material in Response to NNA/USPS-T1-15, 25-26".

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-16.** In USPS-LR-L-9, the Postal Service has provided a workbook entitled "hand 2005" [sic] that appears to relate to the IOCS In County Verification of tally counts for FY 2005. In this workbook, please explain fully what is meant by an "original" tally count for Within County of 238 tallies and what is meant by a "final" tally count for Within County of 341 tallies as shown in the "Final Counts" spreadsheet contained in "hand 2005."

**RESPONSE:**

The workbook entitled "hand2005.xls" inadvertently provided summary documentation from preliminary, not final, datasets. The documentation in LR-L-9 will be revised. There is no change in the subclass assigned to any tally, therefore there are no changes in costs.

The "Original" tally count of 387 (originally 341) in cell D42 is the number of tallies identified as potential Within County Periodicals following the process described in LR-L-9, Appendix B, Part 2, section 6.8. This identifies potential Within County tallies where the destination county matches the county of original entry of the Periodical. The "LRCA" tally count of 193 (originally 238) in cell D41 is the number of Within County Periodicals tallies identified following the process described in LR-L-9, Appendix D.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-17.** In USPS-LR-L-9, the Postal Service has provided a workbook entitled "hand 2005" [sic] that appears to relate to the IOCS In County Verification of tally counts for FY 2005. In this workbook, specifically in the "Final Counts" spreadsheet, the USPS reports that in a file known as "incty.tally," there were 126 tallies at one time and 128 tallies at another time. Moreover, at page D-5 of Appendix D, the USPS reports that the output file "incty.tally" was "Verified as Within-County Periodicals tallies." With respect to this file, please explain how these tally counts were verified, why these "Verified" tallies changed over time and which of the two values represents the final tally count for Within County tallies in this file.

**RESPONSE:**

As reflected in the response to NNA/USPS-T1-16, the workbook entitled "hand2005.xls" will be revised .

The count of 129, originally 128, listed in cell D16 in sheet "Final Counts" of workbook "hand2005.xls" is the number of tallies identified by the recode.f program where PostalOne! reported a positive volume at Within County rates in the same county as the destination of the periodical. The recode.f program is included in LR-L-9, Appendix H. The count of 127, originally 126, listed in cell D17 is the number from those 129 that were identified as potential Within County periodicals following the process described in LR-L-9, Appendix B, part 2, section 6.8, based on the periodical's county of original entry.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-18.** In USPS-LR-L-9, the Postal Service has provided a workbook entitled "hand 2005" [sic] that appears to relate to the IOCS In County Verification of tally counts for FY 2005. In this workbook, specifically in the "Master" spreadsheet, the USPS reports eight examples of "Inconsistent Tallies." These eight tallies do not include Pub. No. 680720, Westmoreland News. However, in the next spreadsheet, "Further Checks," the USPS reports the Westmoreland News as one of five examples of "Inconsistent Tallies." Please explain fully how the USPS adjusted inconsistent tallies in this analysis and how it could add a new *Inconsistent Tally* as part of its checking process outlines in "hand 2005."

**RESPONSE:**

As reflected in the response to NNA/USPS-T1-16, the workbook entitled "hand2005.xls" will be revised.

Westmoreland News was inadvertently included among the inconsistent tallies. Later processing with a more complete database eventually enabled this tally to be verified automatically.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-19.** In USPS-LR-L-9, the Postal Service has provided a workbook entitled "hand 2005" that appears to relate to the IOCS In County Verification of tally counts for FY 2005. In this workbook, various spreadsheets indicate whether a change in classification was made as between In-County and Outside County publications. For each spreadsheet provided in the "hand 2005" [sic] workbook, please provide the number of Within County and Outside County changed entries and the number of entries in each group that "stays same" as a result of this process. In addition, please provide the final number of changed and unchanged entries for Within County and Outside County Periodicals that were used by the USPS in subsequent IOCS calculations.

**RESPONSE:**

As reflected in the response to NNA/USPS-T1-16, the workbook entitled "hand2005.xls" will be revised.

Sheet "Final Counts" provides the number of Within County and Outside County Periodicals resolved by each of the verification processes, the status of these tallies before any of these verification processes, and the number of changes. This includes counts for the manual verification processes in the workbook "hand2005.xls", which are summarized in the sheet "Master". In particular, the information requested is listed in "Final Counts" in the following sections:

inconsistent

incty.octy.hc.nc

incty.box11.hc.nc

incty.nopb.hc.nc

octy.box11.hc.nc

badissn.dat

**REVISED RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-20.** In USPS-LR-L-9, the Postal Service has provided a PC SAS data file for its IOCS Base Year 2005 data. In that data file, it appears that 7,541 "Y" answers were recorded in response to the question Q23E06, "Is Mail Piece a Periodical?" [sic] Please reconcile this count with the count of 7,671 Periodicals tallies that is referenced in Appendix D, at page D-3. Please explain fully why the USPS added 130 tallies where the Mail Piece was not characterized as a Periodical.

**RESPONSE:**

There are 7,681 direct Periodical tallies rather than 7,671; see the response to NNA/USPS-T1-14.

In addition to answering "Y" at Q23E06, Periodicals may also be identified by answering option 'G', "Periodicals" at questions Q23G01 or Q23G01A. 540 tallies recorded 'G' for question Q23G01, while 17 had 'G' recorded for Q23G01A, for a total of 8098 tallies. Of these, 7,681 were coded with domestic Periodicals activity codes, following verification procedures. 109 tallies were assigned non-Periodicals activity codes because of data processing rules that supersede the assignment of domestic Periodicals activity codes. These include cancellation of readings due to the use of prototype software, periodicals destined for other countries, and tallies from carriers handling wheeled containers or a combination of container types. The remaining 308 tallies could not be verified as Periodicals based on the information available, such as the ISSN, Publication number, or title. See LR-L-9, section VI; Appendix B, Part 2, and program ALB078S7 in Appendix H. Table 1, below, provides a complete reconciliation of the counts.

Table 1: Counts of Periodical Responses to Q23E06,Q23G1,Q23G1A

	<b>Tallies</b>	<b>Verified Periodicals</b>	<b>Difference</b>	<b>Activity Codes Superseding Periodicals</b>	<b>Not Verified as Periodicals</b>
Q23E06 = 'Y'	<b>7541</b>	7164	377	102	275
Q23G01 = 'G'	540	500	40	7	33
Q23G01A = 'G'	17	17	0	0	0
<b>Total</b>	<b>8098</b>	<b>7681</b>	<b>417</b>	<b>109</b>	<b>308</b>

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-21.** In USPS-LR-L-9, the Postal Service has provided a PC SAS data file for its IOCS Base Year 2005 data. In the data field labeled "Edited Activity Code" (F244) it appears that 7,746 observations (out of 726,472) fall into activity code Nos. 2211 (356) and 2212 (7390). Please reconcile this total with the count of 7,671 Periodicals tallies referenced in Appendix D, at page D-3.

**RESPONSE:**

There are 7,681 direct Periodical tallies rather than 7,671; see the response to NNA/USPS-T1-14.

In addition to those 7,681 tallies, additional Periodicals tallies in the IOCS data set are generated from mixed-mail tallies and from other shapes. (Activity codes 2211 and 2212 are only for flatshaped pieces.) Table 2 provides a reconciliation.

Table 2: Counts of Periodical Tallies

<b>F244</b>	<b>Direct</b>	<b>Mixed</b>	<b>Total</b>
1211	9	13	22
1212	109	13	122
2211	183	173	<b>356</b>
2212	7217	173	<b>7390</b>
3212	58	5	63
4211	1	2	3
4212	104	13	117
<b>Total</b>	<b>7681</b>	392	8073



**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-22.** In USPS-LR-L-9, the Postal Service has provided a workbook entitled "hand 2005" [sic] that appears to relate to the IOCS verification of tally counts for FY 2005. In the Master spreadsheet shown in this file, the USPS classifies each tally by activity code. The referenced codes in the Master spreadsheet include 2211, 2212 and 1211. However, with respect to the PC SAS data file for IOCS Base Year 2005, the USPS provided a data field labeled "Edited Activity Code" (F244) in which 7,541 Periodicals tallies (See Response to Q23E06) were spread across eleven activity codes including 1211, 1212, 2211, 2212, 2780, 3212, 4212, 4780, 5340, 5745 and 9190. Please provide descriptions of all activity codes used by the USPS in the IOCS process and reconcile Periodicals tallies in these eleven activity codes with the tallies in the three activity codes listed in the Master spreadsheet of "hand 2005."

**RESPONSE:**

Definitions of all activity codes are provided in USPS-LR-L-1, Appendix B. Some tallies where the response to Q23E06 is "Y" are not Periodicals tallies. See the response to NNA/USPS-T1-20.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-23.** In USPS-LR-L-9, the Postal Service has provided a PC SAS data file for IOCS Base Year 2005 data. In the data field labeled "Edited-Activity Code" (F244) it appears that 7,746 observations (out of 726,472) fall into activity code Nos. 2211 (356) and 2212 (7390). In the same database, the USPS provided a data field labeled "Final Basic Function" (F261) in which these 7,746 tallies were spread across three functions, Nos. 1, 2 and 5. Please provide descriptions of all final basic functions used by the USPS in the IOCS process and explain fully how each function was used in subsequent calculations by USPS.

**RESPONSE:**

Basic function is defined as:

- 1 – outgoing
- 2 – incoming
- 3 – transit
- 5 – other

*Their use is described in USPS-LR-1, Appendix E.*

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-24.** In USPS-LR-L-9, the Postal Service has provided a workbook entitled "hand 2005" [sic] that appears to relate to the IOCS verification of tally counts for FY 2005. In the Final Count spreadsheet shown in that workbook, please reconcile the total number of In County "original" and "LRCA" tallies (238 and 341 respectively) with the total number of tallies in activity code 2211 (356) as shown in the Edited Activity Code Field (F244) in the PC SAS data file for the USPS IOCS Base Year 2005 data that was also provided in USPS-LR-L-9.

**RESPONSE:**

Please see the responses to NNA/USPS-T1-16 and NNA/USPS-T1-21.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-25.** With respect to the CV calculations that appear in Tables 1, 2 and 3 of USPS-T-1, in Appendix I, page 1-4, you state that "After all individual iteration is completed, the estimated costs are written to a general summary file." [sic] Please provide this complete file showing the estimated cost of each individual iteration as used in the development of CVs as shown in Tables 1, 2 and 3.

**RESPONSE:**

The requested data are provided in Library Reference USPS-LR-L-156, "Material in Response to NNA/USPS-T1-15, 25-26".

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-26.** With respect to the CV calculations that appear in Tables 1, 2 and 3 of USPS-T-1, in Appendix I, page 1-4, you state that "After all iterations are completed, the combined results are used to calculate the coefficients of variation per subclass of mail[.]" Please provide all underlying data and a step-by step explanation as to how the combined results were used to calculate the coefficients of variation by subclass that appear in Tables 1, 2 and 3.

**RESPONSE:**

The "underlying data" are provided in response to NNA/USPS-T1-25, in Library Reference USPS-LR-L-156, "Material in Response to NNA/USPS-T1-15, 25-26". The CV is the ratio of the estimated standard deviation to the estimate. The estimated standard deviation for a subclass is the sample standard deviation using the results by iteration as data.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-27.** In NNA/USPS-T1-13, you were asked to "please explain fully how it was determined that exactly 174 Periodicals tallies required manual checks while 7,497 Periodicals tallies did not require manual checks." In your response you indicated that "The subclass of the 174 tallies could not be resolved automatically by the programs described in USPS-LR-L-9, Appendix D." With respect to each of the 174 Periodicals tallies that required manual checks please state why each tally required a manual check and whether each tally was ultimately classified by the USPS as a Within County Periodical, an Outside County Periodical or not a Periodical at all.

**RESPONSE:**

Each of the 174 Periodical tallies that were manually checked are listed in the workbook "hand2005.xls", worksheet "Master" in LR-L-9, Appendix H, by section headings that indicate the reason for a manual check.

- Inconsistent Tallies – Tally occurs outside county of original entry, but there are Within-County volumes from PostalOne. Output from recode.f
- incty.octy.chk – Original activity code indicates Within-County, but destination county is different from county of original entry, PostalOne has neither Within County<sup>n</sup> or Outside County volumes at any finance number within the county of original entry, and it is not a CPP publication. Output from checkcpp22.f
- incty.box11.chk – PostalOne has no Periodical volumes at any rate at the ~~the~~ office of original entry, but does show Within-County volumes at another finance number. It is not a CPP publication. Output from checkcpp.f
- incty.nopb.chk – PostalOne has neither Within County<sup>n</sup> or Outside County volumes at any finance number within the county of original entry. The publication is also not a CPP publication. Output from checkcpp.f

The initial subclass assignment from program ALB040 is listed in column H, while a '1' in column J indicates whether the subclass was changed as a result of the manual verification.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-28.** In your response to NNA/USPS-T1-14, you state that "Ten tallies did not initially receive the additional checking described in LR-L-9, Appendix D. With respect to each of these tallies, please explain fully why each tally initially was considered not to require manual checking and why this assessment changed so that *manual tallies were ultimately required*. Please indicate whether each of these ten tallies was ultimately classified by the USPS as a Within County Periodical, an Outside County Periodical or not a Periodical at all.

**RESPONSE:**

The ten Periodical tallies were from employees handling Postage Statements and these received an activity code indicating USPS mail during preliminary analysis. However, when a mailpiece from the mailing is available, its characteristics are recorded and its class can be identified. This oversight in program ALB040 was corrected before final cost estimates for FY2005 were generated, at which time one received a Within-County and nine received Out-of-County activity codes. The ten Periodical tallies initially did not receive any of the Periodical subclass checks documented in LR-L-9, Appendix D. The automated checks, when eventually run, validated the subclass assigned by program ALB040. Manual checking was not required for any of the ten.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
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**NNA/USPS-T1-29.** In the file labeled "summ2005.rpt" in USPS-LR-L-156, you indicate that in the "Original Distribution," there were 387 Within County tallies. Please explain fully how each of these 387 "original" Within County tallies can be identified in the PC SAS data file for IOCS Base Year 2005 (prcsas.sas7bdat) that was previously provided in USPS-LR-L-9. If these "original" tallies cannot be identified in the PC SAS data already provided, please furnish a comparable but revised PC SAS data file for IOCS Base Year 2005 data in which these 387 Within County tallies can be identified.

**RESPONSE:**

The 387 tallies originally identified as potential Within County tallies can not be identified in the IOCS data file prcsas05.sas7bdat provided in LR-L-9. However they can be identified in the data file hqtal2005NewPRC.dat provided in library reference LR-L-156. This can be read into PC SAS using the SAS macro %iocsfmt in writerNew.txt, also provided in LR-L-156. Variable F244 contains the activity code assigned by program ALB040. The following SAS code reads the data file and extracts the 387 tallies.

```

let pathLibRef = E:\Archive\PRCAR2006-1\LibRef\USPS-LR-L-156;
include "&pathLibRef\NNA_USPS-T1-1\writerNew.txt";
filename PrdcIs "&pathLibRef\NNA_USPS-T1-15\HQTAL2005NewPRCFlat.dat";
data PrdcIsUpdated;
  infile PrdcIs lrecl = 695;
  input <iocsfmt>;
  if substr(f244,2,3) = '211';
run;

```



**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
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**NNA/USPS-T1-30.** In the file labeled "tally\_changes.05" in USPS-LR-L-156, you list instances where the activity code for "request.pubs" tallies was changed from 2211 to 2212. With respect to these changes, please provide a step-by-step review of the procedures used by the USPS to identify such publications and to confirm that all such publications in the tally sample were identified.

**RESPONSE:**

Periodicals are identified as Subscriber (S) or Requester (C) in column 17 of file sec.offoe.05. Program recode.f checks every Periodical tally against this file. Both the file and program are provided in LR-L-9, Appendix H.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
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**NNA/USPS-T1-31.** In your response to NNA/USPS-T1-16, you indicate that the "original" tally count of 387 reflects the number of tallies identified as potential Within County Periodicals following the process described in LR-L-9, Appendix B, Part 2, section 6.8. Please refer to Table 1 in your response to NNA/USPS-T1-20. Are the tally counts listed under the heading "Number of tallies" in that response calculated at the same step in processing (Appendix B, Part 2, section 6.8) as the "original" tally count of 387. If not, please provide a breakdown of both the 387 "original tallies" and the total number of tallies by IOCS question (as shown in Table 1) as those counts appeared at the same "original" process step. 3

**RESPONSE:**

Yes.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-32.** In your response to NNA/USPS-T1-18, you indicate that "Westmoreland News was inadvertently included among the inconsistent tallies. Later processing with a more complete data base eventually enabled this tally to be verified automatically." With respect to this response, please explain fully what you mean by "a more complete data base" and provide the earlier, less complete data base in PC SAS format.

**RESPONSE:**

The mapping of ZIP codes to counties was updated for FY2005 processing, but not in time for the preliminary analysis that led to identification of Westmoreland News as a Within-County Periodical destinating outside the county of original entry. The earlier data are available in library reference LR-K-9, Appendix H, file county.zipcode.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION**

**NNA/USPS-T1-33.** *In your response to NNA/USPS-T1-20, you list Periodicals responses by IOCS question. With respect to Table 1 in this response, please confirm, that Q23G01 and Q23G01A would only have been asked if the answer to Q23E06 was not Y. Explain fully any answer other than a confirmation.*

**RESPONSE:**

Not confirmed. Question Q23E6 is asked if the response to Q23E2 "Presence of Indicia" is H – No Indicia. If an indicium is present, such as Permit, then Q23G1 or Q23G1A will be asked. See "IOCSDataEntryFlowchartFY05.xls" in LR-L-9, Appendix H, for the full description of the program flow of the IOCS-CODES data entry software.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
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**NNA/USPS-T1-34.** In your response to NNA/USPS-T1-20, under the column heading "Number non Periodicals" in Table 1, please confirm that these values reflect tallies which had initially been identified as Periodicals in responses to Q23E06, Q23G01 or Q23G01A but which were subsequently identified as non-Periodicals. Please explain fully any answer other than a confirmation.

**RESPONSE:**

Confirmed. Please also see the revised response to NNA/USPS-T1-20.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS MARTIN CZIGLER  
TO INTERROGATORY OF THE NATIONAL NEWSPAPER ASSOCIATION,  
REDIRECTED FROM WITNESS BOZZO**

**NNA/USPS-T46-19.** With respect to your response to NNA/USPS-T46-7, you indicate that in the redesigned IOCS, data collectors record that a piece has no indicia in Q23E2 and then record an answer to the "subsequent" question Q23E6, which asks "Is the mailpiece a Periodical, for example a regularly published magazine, newspaper or newsletter?" With respect to Q23E6, please confirm that in the redesigned IOCS for Base Year 2005, the Postal Service recorded 7,541 "Y" tallies in response to this "Periodicals Check" question Q23E6 and that 377 of these 7,541 tallies were later determined not to be Periodicals at all. Please explain fully any answer other than a confirmation.

**RESPONSE:**

Not confirmed. Please see the revised response to NNA/USPS-T1-20, which discusses how tallies recorded as possible Periodicals can receive International, mixed mail, or cancelled activity codes that override the domestic Periodicals class. 102 of the 377 tallies fall into this category. Some of the remaining 275 tallies may also have been Periodicals, but sufficient information was not available to confirm that as the final coding decision.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO VALPAK INTERROGATORY,  
REDIRECTED FROM WITNESS VAN-TY-SMITH**

**VP/USPS-T11-1.**

- a. Please confirm that when a carrier who is casing addressed ECR flat mail in the office is tallied by the IOCS, the carrier is recorded as casing ECR flats. If you do not confirm, please explain what would be recorded in the IOCS tally.
- b. Please refer to USPS-T-44, page 13, lines 15-19, where witness Coombs describes the practice of collating two sets of ECR saturation flats. When a carrier who is collating saturation ECR flats is the subject of an IOCS tally, does the tally indicate that the carrier was collating flats, or does the tally indicate that the carrier was casing flats? (*i.e.*, when a carrier is collating, is the tally essentially identical to the tally in preceding part a, or do IOCS tallies distinguish between (i) collating and (ii) casing of flats?)

**RESPONSE:**

- a. Confirmed. IOCS will record casing activity in response to question Q16F3a as option: B. Sequencing / Casing Mail.
- b. IOCS will also record collating activity in response to question Q16F3a as option: B. Sequencing / Casing Mail, identical to the casing activity in part (a).

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO VALPAK INTERROGATORY,  
REDIRECTED FROM WITNESS VAN-TY-SMITH**

**VP/USPS-T11-2.**

- a. When a carrier who is casing DALs in the office is tallied by the IOCS, is the carrier recorded as casing a flat, or a DAL? Please explain your answer.
- b. If your answer to preceding part a is to the effect that the tally is recorded as a flat, does the tally contain any information that could be used to indicate that the carrier in fact was casing a DAL instead of the host flat piece? Please explain your answer.
- c. When a DAL is the subject piece of an IOCS tally, does the tally contain any information that the host flat piece, whose basic characteristics such as weight and shape are recorded, is unaddressed? Please explain your answer.

**RESPONSE:**

- a. If the employee is handling a DAL, In-Office Cost System (IOCS) records the following:
  - i) the shape of the DAL itself in response to question Q23A1, e.g.:  
A. Card;
  - ii) that it is a DAL in response to Q23B1, "Detached Address Label";
  - iii) the shape of the DAL host piece in response to Q23B2.

The costs are assigned to the shape of the host piece; if the host piece is unavailable, the costs are assigned to flats. See USPS-LR-L-21, Handbook F-45, Chapter 8.1 and USPS-LR-L-9, IOCS Statistical and Computer Documentation, Appendix B, Part 2, section 6.0.
- b. Yes, see the response to part (a)
- c. No, IOCS does not record whether the host piece is addressed or not.



**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO VALPAK INTERROGATORY,  
REDIRECTED FROM WITNESS VAN-TY-SMITH**

**VP/USPS-T11-3.** Please refer to your responses to preceding interrogatories, VP/USPS-T11-1 and 2.

- a. If IOCS tallies of city carriers do not distinguish between collating flats and casing flats, and also do not distinguish between casing flats and casing DALs, then:
  - (i) With respect to carrier activities associated with saturation flats, how accurate is a profile that is developed from a compilation of IOCS tallies?
  - (ii) Witness Kelley develops estimates of the volumes of DALs and flats that, respectively, are cased and collated. How accurate are such estimates when they are based on or derived from IOCS tallies that do not explicitly identify or distinguish between such activities?
- b. When one cannot tell from IOCS tallies whether carriers were (i) collating flats in lieu of casing flats, or (ii) casing DALs in lieu of casing flats, please describe how one develops a meaningful estimate of the coefficient of variation, or any other pertinent measure of dispersion and statistical uncertainty for the volume of saturation flats that carriers actually case.

**RESPONSE:**

- a.
  - i) IOCS tallies do distinguish between handling DALs and handling flats, Standard ECR saturation flats in particular; see the response to VP/USPS-T11-2. Tallies do not distinguish between collating and casing. IOCS provides no estimates of volumes, whether DALs or flats. It does provide an accurate estimate of the labor costs associated with employee activities, including sequencing and casing of saturation flats. An approximate CV for these costs, based on the GVF approach, is 8.7 percent.
  - ii) My understanding is that such estimates are based on IOCS data that are available; that is, they do not distinguish between casing and collating, and they do distinguish between DALs and flats. However, I have not studied witness Kelley's estimates in detail.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO VALPAK INTERROGATORY,  
REDIRECTED FROM WITNESS VAN-TY-SMITH**

- b. N/A. See the response to part (a).

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO VALPAK INTERROGATORY,  
REDIRECTED FROM WITNESS VAN-TY-SMITH**

**VP/USPS-T11-4.**

- a. For letter-shaped pieces that are DPS'd on Delivery Bar Code Sorter ("DBCS") equipment, please describe how the Postal Service determines the volumes of each subclass that are run through the DBCS.
- b. If DALs should in fact sometimes be DPS'd on DBCS equipment, and a DAL were the subject of an IOCS tally taken during the DPS operation, would it be recorded as a letter or as a flat?
  - (i) If a DAL were to be recorded as a flat, would not it be somewhat anomalous for the IOCS tally to indicate that a flat was being processed on a letter sorting machine? Please explain why or why not.
  - (ii) Does the Postal Service have an edit procedure for IOCS tallies that attempts to find and either delete or somehow correct those IOCS tallies that appear on their face to be anomalous? Please explain your answer.
- c. Please refer to the testimony of witness McCrery, USPS-T-42, page 12, line 27 to page 13, line 1.
  - (i) Assuming that a significant number of DALs in fact are DPS'd on DBCS equipment (as indicated by witness McCrery), do you know of any way that IOCS tallies can be used to estimate the volume of DALs that are DPS'd? If so, please explain.
  - (ii) If your answer to preceding part (i) is negative, what data, or information sources, could the Postal Service use to estimate the volume of DALs that are DPS'd?

**RESPONSE:**

- a. [Redirected for response by the United States Postal Service.]
- b. Information on the shape of the DAL is recorded, but the costs of the tally are assigned to the shape of the DAL's host piece, if available. If not available, the cost is assigned to flats. Rather than being anomalous, the assignment is by design.
  - i) N/A.
  - ii) N/A.
- c.
  - i) No.
  - ii) I have not studied the matter.

**RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS MARTIN CZIGLER TO VALPAK INTERROGATORY,  
REDIRECTED FROM WITNESS VAN-TY-SMITH**

**VP/USPS-T11-5.** Does the Postal Service have any plans to change the IOCS so as to distinguish or otherwise identify DALs explicitly when they are the subject of an IOCS tally that is taken on letter-shaped pieces being DPS'd?

- a. If so, please indicate when the IOCS will begin to record such information.
- b. If not, please refer to USPS-T-42, page 12, lines 27-28 (which says that DALs are often transported back to the plant for DPS processing) and explain how the IOCS can be used to estimate either the cost or volume of DALs that are DPS'd (or the proportion of DPS'd letter shaped pieces that are DALs).

**RESPONSE:**

- a. IOCS already distinguishes such DALs by asking question Q23B1, "Detached Address Label". See the response to VP/USPS-T11-2, part (a).
- b. N/A.

1                   CHAIRMAN OMAS: This brings us to oral  
2 cross-examination.

3                   One participant has requested oral cross,  
4 the National Newspaper Association. Ms. Rush?

5                   MS. RUSH: Thank you, Mr. Chairman, and good  
6 morning.

7                   CROSS-EXAMINATION

8                   BY MS. RUSH:

9                   Q     Good morning, Dr. Czigler. I'm Tonda Rush.  
10 I represent National Newspaper Association.

11                   I'd like to begin by discussing with you the  
12 process by which the IOCS tallies are collected and  
13 edited for the within county subclass.

14                   On page 4 of your testimony you're  
15 discussing Appendix D, which describes in some detail  
16 the process that the Postal Service goes through to  
17 try to determine where these IOCS tallies for  
18 periodicals belong.

19                   I believe, as I understand it, most of that  
20 process is to determine whether the periodical tallies  
21 actually belong to within county or the outside  
22 county. Is that correct?

23                   A     That's correct.

24                   Q     When you're trying to identify the within  
25 county tallies it appears that you're focusing on the

1 eligibility question. Does this tally belong to a  
2 periodical that is eligible for within county mail?  
3 Is that correct?

4 A Yes.

5 Q Okay. You can't tell either in the data  
6 collection process or on your editing whether the  
7 piece that belonged to that tally actually did pay  
8 within county postage. Is that correct?

9 A That's correct.

10 Q Okay. Can you just for purposes of the  
11 record refresh us on your understanding of what makes  
12 a periodical eligible for within county rates?

13 A The definition of the periodical has to be  
14 within the same county as the original entry county.  
15 Furthermore, either the circulation has to be under  
16 10,000, or 50 percent of the circulation has  
17 destined within the same county.

18 Q Okay. Let me pose some examples for you  
19 hypothetically and ask you to explain to me how these  
20 would be treated either at the data collection when  
21 the data collector goes through the treed example  
22 questions or in the editing process.

23 Let's imagine that the tally belongs to an  
24 eligible within county periodical, but in fact this  
25 mail piece is destined to a nonsubscriber for within

1 county, and therefore the publisher would have to pay  
2 outside county rates. Can you accept that subject to  
3 check?

4 A Yes.

5 Q Let me further clarify that this  
6 hypothetical piece is going to a nonsubscriber,  
7 possibly to solicit a subscription, and it's outside  
8 the publisher's allowed sampling, which would allow  
9 them to pay the within county rate.

10 Let's say the publisher is sending a copy to  
11 a nonsubscriber, paying the outside county rate, but  
12 that it originates from a within county eligible  
13 publication. How would that be calculated on the  
14 tally if that piece were pulled?

15 A Since the definition would be outside the  
16 county of original entry, eventually that would  
17 receive an activity code corresponding to an outside  
18 county periodical.

19 Q Let me specify that in this case the mail  
20 piece is actually destined within county. It simply  
21 goes to a nonsubscriber. Would it not show up as a  
22 within county tally in most cases?

23 A Yes, it would.

24 Q Are you familiar with the concept of  
25 advertiser proof copies?

1           A     No, I'm afraid not.

2           Q     Would you accept, subject to check, that a  
3 publisher is permitted to send a copy to the  
4 advertisers so the advertiser can see that the ad  
5 actually got into the paper?

6           A     Yes.

7           Q     And that those pieces would be actually  
8 mailed within county at the within county rates?

9           A     Subject to check.

10          Q     Subject to check. All right. However, if  
11 you had a hypothetical publisher who finds it too much  
12 trouble to get all of those advertisers individually  
13 listed in each week's mailing and simply puts a batch  
14 to advertisers in and pays the outside county rate for  
15 those because they're not eligible for the preferred  
16 rate and one of those copies gets pulled in a tally,  
17 it would show up for the data collector as an in  
18 county tally, would it not, and also for you on the  
19 editing even if in county rates were not paid?

20          A     To clarify, the data collector wouldn't  
21 identify those either within county or out of county,  
22 but in the final editing process it would receive an  
23 activity code indicating in county.

24          Q     Would you also accept subject to check that  
25 publishers are not permitted to use the within county



1 rate if subscribers have paid less than 50 percent of  
2 the subscription price?

3 A Subject to check, yes.

4 Q And those, if there were such a deeply  
5 discounted subscription that were not eligible for the  
6 within county rate, might show up also as a within  
7 county tally?

8 A Yes, I would agree.

9 Q I think what we're leading to here is that  
10 you don't really have any way even with this  
11 considerably redesigned editing process to identify  
12 what rate that particular piece actually paid.

13 CHAIRMAN OMAS: Excuse me, Ms. Rush.

14 Mr. Czigler, is your mic on, or would you  
15 pull it closer to you, please? We're having problems  
16 with the transmission. Thank you.

17 BY MS. RUSH:

18 Q Let me go back. I'm just trying to clarify  
19 that in fact as you go through the editing process for  
20 the tallies it's almost impossible for the editor to  
21 tell whether that piece actually was mailed at the  
22 within county rate.

23 All you can really tell is that it was an  
24 eligible publication, and you're having to make the  
25 assumption that it was mailed at that rate. Isn't

1       that how the tally process works?

2           A       In addition to eligibility, the destination  
3       county would also have to be --

4           CHAIRMAN OMAS: Mr. Czigler, you're going to  
5       have to pull the mic closer to you. You can bend it  
6       down towards you some.

7           THE WITNESS: In addition to eligibility,  
8       the destination county has to match the origin entry  
9       county.

10          BY MS. RUSH:

11          Q       Understood, but nonetheless there could well  
12       be copies mailed from an eligible publication's county  
13       of entry to subscribers within that county of entry  
14       that would not be eligible for the within county rate,  
15       but would nonetheless show up to the editor as a  
16       likely in county tally. That's all I'm trying to  
17       establish with you.

18          A       That's correct.

19          Q       For those publications that acquire their  
20       eligibility by having less than 10,000 circulation, my  
21       question is what process the editor would go through  
22       to determine that the eligibility still existed, that  
23       in fact that publication's circulation hadn't in the  
24       base year crept above 10,000 and the publication  
25       actually lost its eligibility?

1           A     The circulation is checked against a recent  
2     copy of a directory of periodical information.  
3     Therefore, it should have a fairly up-to-date  
4     circulation number.

5           Q     And is your understanding that the  
6     periodicals information that it's checked against  
7     primarily comes from Postal One where you can actually  
8     show that there was postage paid and within county  
9     mail?

10          A     Excuse me. The circulation numbers?

11          Q     Yes.

12          A     I believe that comes from other reference  
13     material.

14          Q     All right.

15          A     Not from Postal One.

16          Q     As you go through the process and you pull a  
17     tally that appears to be from an eligible publication  
18     and you can't identify it from the pull-up menu, the  
19     drop-down menu -- I've forgotten what it was called  
20     where you've got the 22,000 publications.

21                I believe you said in your testimony, and  
22     perhaps it was in response to one of our questions,  
23     that then you go look at the Postal One data to see  
24     whether there was actually in county postage paid by  
25     that publication. Am I understanding you correctly?

1           A     All periodicals, whether or not they were on  
2     the drop-down list, are checked against the Postal One  
3     data.

4           Q     All right. Let me shift to another line  
5     here if you don't mind, Dr. Czigler. Would you turn  
6     in your testimony to page 5?

7                     Beginning on line 5 you've made a comment  
8     here that the amount of variation one could expect due  
9     to sampling alone is quantified by the coefficient of  
10    variation or the CV. Do you have it?

11          A     That's correct. I have it.

12          Q     Could you explain here what you meant by  
13    that statement?

14          A     The CV is a measure of the possible  
15    variation you might see from a survey sampling system  
16    such as IOCS, variation simply due to sampling.

17          Q     Would you turn to page 12 of your testimony  
18    and look in the second paragraph, the last sentence in  
19    that paragraph?

20                    I believe you said there that in city  
21    carrier costs the median CV had decreased from 10.7  
22    percent to 9.6 percent. Is that correct?

23          A     That's correct.

24          Q     And then would you turn please to Table 2,  
25    which I believe is on page 15?

1           A     I have it.

2           Q     I actually see a CV here that's 9.6 percent,  
3     and it belongs to bound printed matter. Is that  
4     correct?

5           A     That's correct.

6           Q     And is that the same value that you  
7     mentioned back on page 12?

8           A     That's correct.

9           Q     Would you look at the CVs for the two  
10    subclasses for standard mail and tell me what you have  
11    there?

12          A     The CV for standard regular mail is 1.46  
13    percent and for ECR is 2.8 percent.

14          Q     And move up the chart and give me the same  
15    numbers for first class letters and parcels and  
16    presort letters and parcels.

17          A     The CV for letters and parcels is 1.98  
18    percent and for presort letters and parcels is 1.99  
19    percent.

20          Q     All four of those are considerably lower  
21    than 9.6 percent, are they not?

22          A     That's correct.

23          Q     The first column of numbers that appears in  
24    that chart called Cost Est I assume are cost  
25    estimates. Is that correct?

1           A     Correct.

2           Q     If you look at the cost estimates for those  
3     four subclasses that I was just mentioning to you, the  
4     first class letters and parcels, the presort letters  
5     and parcels and the two standard subclasses, would you  
6     agree subject to check that if you totaled those  
7     you're going to come up with something like 80 percent  
8     of the total cost that appears in this table?

9           A     Subject to check, yes.

10          Q     So if that's the case, Dr. Czigler, it  
11     appears that these four largest subclasses certainly  
12     have a much lower CV than 9.6 percent.

13          A     That's correct.

14          Q     And for within county periodicals is it  
15     correct that the CV you report here is 11.66 percent?

16          A     That's correct.

17          Q     Quite a bit higher than 9.6 percent?  Quite  
18     a bit higher than the four other subclasses as well?  
19     Is that correct?

20          A     Yes.

21          Q     My question here is what would it take for  
22     the subclass to produce a CV that is more in line with  
23     either the mean or certainly these four large  
24     subclasses?

25          A     The proportion of total cost associated with

1 in county periodicals would have to increase to about  
2 the same magnitude as the large subclasses.

3 Q Is that the only way that the CV could be  
4 improved? Wouldn't it also be true that the number of  
5 samples taken throughout the system could be increased  
6 and improve the observations that you see for the  
7 subclass?

8 A Yes. If the total sample size were  
9 increased very dramatically, then the CV for in county  
10 could be decreased say down to two percent. Of  
11 course, in the meantime the CVs for all those other  
12 categories would also decrease.

13 Q I know you're not the Postal Service budget  
14 officer and you don't commission these studies, but  
15 why is a much larger sample not taken?

16 A The sample size that's taken has been  
17 determined to be appropriate for the use to which it's  
18 put for determining CVs for the classes of interest.

19 Q If that's the case then is the inevitable  
20 result that the small volume subclasses are going to  
21 have high CVs?

22 A Yes.

23 Q And they're just stuck with that pretty  
24 much?

25 A Pretty much.

1 MS. RUSH: Thank you, Mr. Chairman. I have  
2 no further questions.

3 CHAIRMAN OMAS: Thank you, Ms. Rush.

4 Is there any additional cross-examination  
5 for Witness Czigler?

6 (No response.)

7 CHAIRMAN OMAS: There are no questions from  
8 the bench.

9 Mr. Hollies, would you like some time with  
10 your witness?

11 MR. HOLLIES: Yes. Five minutes would be  
12 nice. Thank you.

13 CHAIRMAN OMAS: Fine. Thank you.

14 (Whereupon, a short recess was taken.)

15 CHAIRMAN OMAS: Mr. Hollies?

16 MR. HOLLIES: Thank you, Mr. Chairman. We  
17 do have a couple of questions.

18 REDIRECT EXAMINATION

19 BY MR. HOLLIES:

20 Q Dr. Czigler, are you aware what the postage  
21 rates are for within county and outside county?

22 A I'm aware that inside county postage rates  
23 are much lower than outside county rates.

24 Q If you were a publisher and mailer, in which  
25 category would you prefer to mail your pieces if you



1 could?

2 A I'd prefer to mail them at in county rates.

3 Q At the close of counsel's cross-examination  
4 she asked you whether small volume categories are  
5 stuck with high CVs.

6 Looking at the table in your testimony,  
7 Table 2, within county has a CV of 11.66 percent. Is  
8 that reasonable? Is that a reasonable CV?

9 A Given the constraints of the sample size on  
10 IOCS, that's a reasonable CV for a product with that  
11 small a share of costs.

12 MR. HOLLIES: Thank you. That's the close  
13 of my questions.

14 CHAIRMAN OMAS: Thank you.

15 Mr. Czigler, that completes your testimony  
16 here today. We appreciate your appearance and your  
17 contribution to our record, and you are now excused.  
18 Thank you.

19 THE WITNESS: Thank you.

20 (Witness excused.)

21 CHAIRMAN OMAS: Our next witness is Eliane  
22 Van-Ty-Smith.

23 There are no requests for oral cross-  
24 examination of that witness.

25 Mr. Heselton, would you proceed to move for

1 admission of Ms. Van-Ty-Smith's testimony, please?

2 MR. HESELTON: So moved, Mr. Chairman. That  
3 would be the direct testimony of Eliane Van-Ty-Smith,  
4 USPS-T-11, and its associated library reference,  
5 USPS-LR-L-55.

6 CHAIRMAN OMAS: Is there any objection?

7 (No response.)

8 CHAIRMAN OMAS: Hearing none, I will direct  
9 counsel to provide the reporter with two copies of the  
10 corrected direct testimony of Ms. Van-Ty-Smith.

11 That testimony is received into evidence.  
12 However, as is our practice, it will not be  
13 transcribed.

14 (The document referred to was  
15 marked for identification as  
16 Exhibit No. USPS-T-11 and was  
17 received in evidence.)

18 CHAIRMAN OMAS: Mr. Heselton, have the  
19 answers to the designated written cross-examinations  
20 been reviewed and corrected?

21 MR. HESELTON: Yes, they have, Mr. Chairman.

22 CHAIRMAN OMAS: Please provide two copies of  
23 the corrected designated written cross-examination of  
24 Witness Van-Ty-Smith to the reporter.

25 That material is received into evidence and

1 is to be transcribed into the record.

2 (The document referred to was  
3 marked for identification as  
4 Exhibit No. USPS-T-11 and was  
5 received in evidence.)

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BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, DC 20268-0001

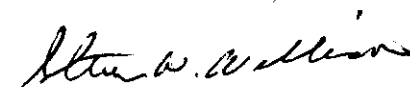
Postal Rate and Fee Changes, 2006

Docket No. R2006-1

DESIGNATION OF WRITTEN CROSS-EXAMINATION  
OF UNITED STATES POSTAL SERVICE  
WITNESS ELIANE VAN-TY-SMITH  
(USPS-T-11)

<u>Party</u>	<u>Interrogatories</u>
Alliance of Nonprofit Mailers	MPA/USPS-T11-1-3
Magazine Publishers of America	MPA/USPS-T11-1-3
Pitney Bowes Inc.	PB/USPS-T11-1
Postal Rate Commission	ADVO/USPS-T11-1 APWU/USPS-T11-1-2 MPA/USPS-T11-1-3 PB/USPS-T11-1 TW/USPS-T11-1a, 2-7 TW/USPS-T20-13 redirected to T11 VP/USPS-T11-6a
Time Warner Inc.	TW/USPS-T11-1a, 2-7
Valpak Direct Marketing Systems, Inc. and Valpak Dealers' Association Inc.	VP/USPS-T11-6a

Respectfully submitted,



Steven W. Williams  
Secretary

INTERROGATORY RESPONSES OF  
UNITED STATES POSTAL SERVICE  
WITNESS ELIANE VAN-TY-SMITH (T-11)  
DESIGNATED AS WRITTEN CROSS-EXAMINATION

<u>Interrogatory</u>	<u>Designating Parties</u>
ADVO/USPS-T11-1	PRC
APWU/USPS-T11-1	PRC
APWU/USPS-T11-2	PRC
MPA/USPS-T11-1	ANM, MPA, PRC
MPA/USPS-T11-2	ANM, MPA, PRC
MPA/USPS-T11-3	ANM, MPA, PRC
PB/USPS-T11-1	Pitney Bowes, PRC
TW/USPS-T11-1a	PRC, TW
TW/USPS-T11-2	PRC, TW
TW/USPS-T11-3	PRC, TW
TW/USPS-T11-4	PRC, TW
TW/USPS-T11-5	PRC, TW
TW/USPS-T11-6	PRC, TW
TW/USPS-T11-7	PRC, TW
TW/USPS-T20-13 redirected to T11	PRC
VP/USPS-T11-6a	PRC, Valpak

Response of United States Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of ADVO Inc.

**ADVO/USPS-T11-1.** In LR L-1 and in LR L-55, please provide a list of and the definitions/explanations for the F9 codes (e.g., F9214, F9219, F9901-F9919, F9420, F9421, etc.).

**RESPONSE.**

The 'F9' codes in Appendix C of LR-L-1 have not been updated to reflect the corresponding FY 05 IOCS codes used in Docket No. R2006-1. The definitions/explanations for the 'F9' codes in Appendix C of LR-L-1 can be found in Docket No. R2005-1, where they are filed in USPS LR-K-9: In-Office Cost System (IOCS) Statistical and Computer Documentation, Appendix A. The 'F9' codes do not appear in LR-L-55, as LR-L-55 reflects only the FY 05 IOCS codes used in Docket No. R2006-1 (see USPS LR-L-9: In-Office Costs System (IOCS) Statistical and Computer Documentation, Appendix A, part 2, pp. A33-A34). For further discussion of FY 05 changes to IOCS, see the testimonies of witness Czigler (USPS-T-1) and witness Bozzo (USPS-T-46).

Response of United States Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of the American Postal Workers Union, AFL-CIO

**APWU/USPS-T11-1** Please confirm that the attached worksheet contains the base year '05 volume variable mail processing costs (USPS method) by cost pool for First Class metered letter-shaped mail. If you can not confirm, please provide the correct numbers.

**RESPONSE.**

Confirmed.

FY 05 USPS V  
 PLANTS-MAIL PR  
 BY 05 V V COSTS BY SHAPE AND BY COST POOL  
 SHAPE=LETTER

MAIL	COSTPOOL								
Frequency	MODS 11 D/BCS	MODS 11 OCR/	MODS 12 AFSM100	MODS 12 FSM/1000	MODS 13 1SACKS_M	MODS 13 1TRAYSRT	MODS 13 MECPARC	MODS 13 SPBS OTH	MODS 13 SPBSPRIO
1-1 LTRS OTHER	366552	45113	4114.9	1459.3	622.32	19865	168.41	3288.6	1314.4
1-2 LTRS METER	179536	47073	3289.7	1370.2	536.07	12228	5.534	1224.4	229.75
2--LTRS PRESORT	336049	22175	2708.1	1564.6	1797.5	33361	111.43	1754.5	0
3--CARDS SGL PC	22335	5021.3	327.58	240.95	0.1287	796.74	1.6542	0	43.646
4--CARDS PRSORT	13379	1034	96.51	0.0595	17.873	711.95	0.3183	82.174	0
8-1 IN COUNTY	0.2501	0	2.5515	0.0342	0.0979	0.0332	0.1204	0	0
8-2 OUT COUNTY	449.76	75.861	452.71	0.5806	1.6635	0.3015	1.4532	518.56	0
10--(A) ENH.CARR	24169	1432.3	413.76	264.03	14.293	5674	5.1491	1047.9	185.42
11--(A) REGULAR	333795	28135	12942	2573.2	2621	38032	127.56	6086.6	347.55
15--(B) BD PRINT	87.029	0	0	0	0	0.0002	0.0419	96.396	0
16--(B) MEDIA ML	0.0021	0	0	0.001	0.0029	0.0171	0.0053	0	0
Total	1276352	150060	24347.7	7473.05	5610.95	110669	421.679	14099.1	2120.72

Attachment APWU/USPS T11-1 Question



FY 05 USPS V  
 PLANTS-MAIL PR  
 BY 05 V V COSTS BY SHAPE AND BY COST POOL  
 SHAPE=LETTER

MAIL	COSTPOOL								
Frequency	MODS 14 MANF	MODS 14 MANL	MODS 14 MANP	MODS 14 PRIORITY	MODS 15 LD15	MODS 17 1CANCEL	MODS 17 1DSPATCH	MODS 17 1FLATPRP	MODS 17 1MTRPRE
1-1 LTRS OTHER	4627.9	307391	1171.4	1176.1	105120	80562	32121	1270.3	4763.7
1-2 LTRS METER	2750.7	160606	430.48	741.5	34279	19460	18809	209.44	7132.8
2--LTRS PRESORT	1939.4	104615	1672.3	520.1	23183	3291.5	22822	1579.2	3397.8
3--CARDS SGL PC	621.98	49539	93.24	223.15	5359.2	4252.2	1382.8	371.06	232.25
4--CARDS PRSORT	115.52	9449.3	0.5219	120.84	1286.2	78.403	1187.6	214.2	163.63
8-1 IN COUNTY	0	643.8	0.0045	0	0	0	0	0.073	2.0849
8-2 OUT COUNTY	360.1	1158.9	0.4899	115.34	0	0	0	210	30.533
10--(A) ENH.CARR	98.539	5459.6	269	93.659	389.52	860.07	1931.6	325.69	1.195
11--(A) REGULAR	3878.6	98361	2660.4	1062.8	10063	4211.3	14833	4217	1731.5
15--(B) BD PRINT	0	0.0772	0.0029	0	0	0	0	0	5.38E-05
16--(B) MEDIA ML	0	121.39	0.0136	0	0	97.07	0	0	0.0062
Total	14392.7	737346	6297.93	4053.52	179680	112813	93086.9	8397.04	17455.4

Attachment APWU/USPS T11-1 Question

FY 05 USPS V  
 PLANTS-MAIL PR  
 BY 05 V V COSTS BY SHAPE AND BY COST POOL  
 SHAPE=LETTER

MAIL	COSTPOOL										
Frequency	MODS 17 P 10PBULK	MODS 17 10PPREF	MODS 17 10PTRAN	MODS 17 1PLATFORM	MODS 17 1POUCHNG	MODS 17 1PRESORT	MODS 17 1SACKS_H	MODS 17 1SCAN	MODS 18 1EEQMT		
1-1 LTRS OTHER	11921	64193	19327	185255	7691.4	2529.9	3515.5	8073.5	2747.3		
1-2 LTRS METER	2730.6	35076	9430.1	90998	3193	1729.9	1994.4	4204.7	2003.3		
2--LTRS PRESORT	9375.1	78171	12078	128316	4276	9924.9	4249.3	7433.8	1945.8		
3--CARDS SGL PC	479.66	3107.4	654.27	13368	342.54	4.9729	42.863	896.61	234.06		
4--CARDS PRSORT	189.41	2089.6	351.07	5896.5	467.45	330.51	10.129	599.58	515.69		
8-1 IN COUNTY	0.001	0.3218	0.1491	105.72	2.3876	0.1746	1.3932	0.3194	1.5467		
8-2 OUT COUNTY	0.0673	306.87	6.2135	1039.6	34.294	0.5969	20.496	3.8194	11.901		
10--(A) ENH.CARR	8704.9	8547.1	2254.7	18185	1120.1	2362.7	2875.8	25.291	198.79		
11--(A) REGULAR	64373	48883	14450	137780	3506.7	3984.8	7281.6	2055.4	3203.9		
15--(B) BD PRINT	0	0	0	39.057	0	0.0024	0	0	0.4302		
16--(B) MEDIA ML	0.0006	0	9.4652	70.769	0	0.043	0.0006	0.0022	0.8123		
Total	97773.7	240374	58560.8	581065	20733.9	20868.5	19991.4	23293.1	10863.6		

Attachment APWU/USPS T11-1 Question

FY 05 USPS V  
 PLANTS-MAIL PR  
 BY 05 V V COSTS BY SHAPE AND BY COST POOL  
 SHAPE=LETTER

MAIL	COSTPOOL								
Frequency	MODS 18 BUSREPLY	MODS 18 EXPRESS	MODS 18 MAILGRAM	MODS 18 REGISTRY	MODS 18 REWRAP	MODS 19 INTL ISC	MODS 49 LD49	MODS 79 LD79	MODS 99 1SUPP_F1
1-1 LTRS OTHER	4458.2	1059.3	1330.6	2126	7083.9	3879.7	29263	3727.8	74905
1-2 LTRS METER	1524.2	463.37	480.12	910.83	1215.2	1437	23148	1917	37132
2--LTRS PRESORT	1035.9	362.11	499.58	309.79	922.27	1696.5	62231	61035	50571
3--CARDS SGL PC	606.53	0.603	6.0286	1.1744	339.3	191.89	4822.7	1024.4	6414
4--CARDS PRSORT	0	0	4.3719	0	115.12	29.525	4022.7	1655	2298.8
8-1 IN COUNTY	0.0398	0.0744	0.1363	0.1524	0.0431	0	0.0855	0	43.555
8-2 OUT COUNTY	94.05	0.6217	0.3536	1.3209	0.632	33.255	843.35	0	281.99
10--(A) ENH.CARR	204.56	4.5287	12.158	9.1791	227.01	36.166	287.86	4356.2	5248.2
11--(A) REGULAR	884.93	597.86	107.42	360.25	1170.8	1121.4	9720.5	45213	51519
15--(B) BD PRINT	0	0	0	0	0	0	0.0001	0	12.757
16--(B) MEDIA ML	0	0	0.0627	0	0	0	0.0126	0	17.139
Total	8808.39	2488.47	2440.79	3718.69	11074.3	8425.37	134339	118928	228443

Attachment APWU/USPS T11-1 Question

FY 05 USPS V  
 BMCS-MAIL PR  
 BY05 V V COSTS BY SHAPE &  
 SHAPE=LETTER

COST POOL

MAIL

COSTPOOL

Frequency	BMCS NMO	BMCS OTHR	BMCS PLA	BMCS PSM	BMCS SPBS	BMCS SSM
1-1 LTRS OTHER	238.97	1560.5	1280.7	86.551	0.0301	1.7968
1-2 LTRS METER	0	107.24	66.763	0	126.23	0.0015
2--LTRS PRESORT	0	101.98	87.391	0	0	0
3--CARDS SGL PC						
4--CARDS PRSORT	0	170.9	30.266	0	0	0
8-1 IN COUNTY	0	13.271	5.9654	0	0	0
8-2 OUT COUNTY	0	366.64	176.35	0	0.0178	103.51
10--(A) ENH.CARR	1346.1	8720.3	6629.3	155.44	527.06	347.63
11--(A) REGULAR	4447	38310	37206	976.89	3150.1	7415.1
15--(B) BD PRINT						
16--(B) MEDIA ML	0	107.24	26.887	0	0	0
Total	6032.01	49456.5	45509.3	1218.88	3803.42	7868.05

Attachment APWU/USPS T11-1 Question

FY 05 USPS V  
 PO/STA/BRS-MAIL PR  
 BY 05 V V COSTS BY SHAPE AND COST POOL  
 SHAPE=LETTER

MAIL	COSTPOOL								
Frequency	NONMODS ALLIED	NONMODS AUTO/MEC	NONMODS EXPRS IN	NONMODS EXPRSOUT	NONMODS MANF	NONMODS MANL	NONMODS MANP	NONMODS MISC	NONMODS REGISTRY
1-1 LTRS OTHER	64976	52353	1077.3	0	5185.8	309969	2283.2	96881	5028.1
1-2 LTRS METER	27307	24698	659.33	0	2630.8	161252	231.65	54252	17104
2--LTRS PRESORT	30943	48802	276.16	0	394.34	190192	1533.9	93753	2318.5
3--CARDS SGL PC	3081.5	3315.6	0	18.785	465.81	26935	32.806	8963.7	327.06
4--CARDS PRSORT	1293.2	1078.6	0	11.271	87.648	7000.5	0	4341.2	308.71
8-1 IN COUNTY									
8-2 OUT COUNTY	408.79	120.64	0	0	0	737.77	0	348.72	0.0953
10--(A) ENH.CARR	3474.5	8192.1	0	0	602.4	10867	129.85	5216.8	2.2847
11--(A) REGULAR	28073	40004	216.19	0	3470.2	140460	2176.8	61620	960.68
15--(B) BD PRINT									
16--(B) MEDIA ML									
Total	159556	178565	2228.95	30.0558	12836.9	847414	6388.14	325377	26049.8

Attachment APWU/USPS T11-1 Question

Response of United States Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of the American Postal Workers Union, AFL-CIO

**APWU/USPS-T11-2** To your knowledge, does the new IOCS define metered mail letters differently now than did the old version of IOCS? If so please detail any differences.

**RESPONSE.**

To my knowledge, the new IOCS does not define metered mail letters differently now than did the old version of IOCS.

**RESPONSE OF POSTAL SERVICE WITNESS ELIANE VAN-TY-SMITH TO  
INTERROGATORY OF MAGAZINE PUBLISHERS OF AMERICA, INC. AND  
ALLIANCE OF NONPROFIT MAILERS**

**MPA/USPS-T11-1.** Please refer to USPS-LR-L-43, PER OC FLATS.xls, 'CRA FLATS' and line 19 on page 18 through line 8 on page 19 where you state:

As was proposed by the Postal Service in Docket No. R2005-1, the two support cost pools at the plants are consolidated into one "piggyback" cost pool (see discussion in USPS-T-12, section III E, Docket No. R2005-1). The two plant support cost pools are quasi-administrative pools characterized by a high percentage of not-handling-mail activities. The volume-variable costs for the "piggyback" cost pool are distributed to subclasses in proportion to the distribution of volume-variable costs of subclasses in the cost pools they support. The supported cost pools do not include the ISC mail processing cost pool, since these facilities have their own support operations.

More specifically, the "Mail Processing Support" and "Miscellaneous" cost pools (1SUPPORT and 1MISC) are combined into a Function 1 support cost pool. The volume-variability factor for the pool is the cost-weighted average of the econometric volume-variable factors (see B.2.1 above). The handling tallies in these pools are not used in the distribution keys, following the rationale in witness Degen's testimony in Docket No. R2000-1. Instead, the distribution key shares for the Function 1 support cost pool are the subclass shares of volume variable costs in the supported operations. Thus, the volume-variable cost for the Function 1 support pool is distributed in proportion to all Function 1 and LDC 79 volume-variable costs.

- (a) Please confirm that you used the "piggyback" distribution approach for the 1SUPPF1 cost pool shown on USPS-LR-L-43, PER OC FLATS.xls, 'CRA FLATS.'
- (b) Did you use this piggyback approach for any other cost pools shown on USPS-LR-L-43, PER OC FLATS.xls, 'CRA FLATS'? If so, please identify those cost pools.
- (c) Please list all cost pools that you believe are quasi-administrative, and explain why you believe they are quasi-administrative.

**RESPONSE**

- a. Confirmed for the MODS 99 1SUPP\_F1 cost pool in Table 3 of my testimony corresponding to the 1SUPPF1 cost pool shown on USPS-LR-L-43, PER OC FLATS.xls, 'CRA FLATS.'

**RESPONSE OF POSTAL SERVICE WITNESS ELIANE VAN-TY-SMITH TO  
INTERROGATORY OF MAGAZINE PUBLISHERS OF AMERICA, INC. AND  
ALLIANCE OF NONPROFIT MAILERS**

- b. No, I did not use this piggyback approach for any other of the cost pools in Table 3 of my testimony which correspond to those shown on USPS-LR-L-43, PER OC FLATS.xls, 'CRA FLATS.'
- c. From Table 3 of my testimony, the MODS 99 1SUPP\_F1 cost pool is the one readily seen to be quasi-administrative. It includes the MODS operation numbers and operation names for the two LDC18 pools identified as 1MISC and 1SUPPORT which are shown in Table I-2B in USPS-LR-L-55. These MODS operation numbers and LDCs are not those used for general administrative services, and apply only to mail processing, but these operation names indicate the quasi-administrative nature of the operations.



Response of United States Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of Magazine Publishers of America, Inc., and Alliance of Nonprofit  
Mailers

**MPA/USPS-T11-2.** Please refer to your response to MPA/USPS-T11-1, where you state: "From Table 3 of my testimony, the MODS 99 1SUPP\_F1 cost pool is the one readily seen to be quasi-administrative. It includes the MODS operation numbers and operation names for the two LDC 18 pools identified as 1misc and 1SUPPORT."

(a) Is the Non-MODS MISC cost pool quasi-administrative? If not, please explain fully.

(b) Please explain how the activities performed in the Non-MODS MISC cost pool differ from the activities performed in the MODS 1misc cost pool.

(c) Why didn't you use the "piggyback" distribution approach for the Non-MODS MISC cost pool? Please explain fully.

**RESPONSE.**

In my response to questions (a) through (c) below, I am interpreting the 'Non-MODS MISC' cost pool to refer to the MISC cost pool at Post-Offices, Stations and Branches which include the operations for the Non-MODS facilities and the LDC 41-44, and 48 operations at the MODS facilities.

- a. The MISC cost pool at Post-Offices, Stations and Branches (PO/STA/BR) cannot be primarily characterized as being quasi-administrative in the same way as the MODS 1MISC cost pool. The PO/STA/BR MISC cost pool includes all operations, other than those involving the automated, mechanized and manual piece distribution and allied labor, and other than those relating to the Registry and the Express Mail Delivery units. More specifically, it includes the following operations as reported in IOCS Question 18: Computer Forwarding Systems and Mark-Up (16% of the pool labor costs); Business Reply/Postage Due (12%); Nixie (8%); Other Accountable Activities (24%); Bulk Mail Acceptance (14%); Empty Equipment Work (11%); and Other Miscellaneous Mail Processing activities, including Damage Repair/Rewrap (15%). Tallies for the PO/STA/BR office group are assigned to the mail processing, window

Response of United States Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of Magazine Publishers of America, Inc., and Alliance of Nonprofit  
Mailers

service, and administrative cost components based on the IOCS operation code, so costs associated with IOCS tallies with administrative operation codes are assigned to the administrative cost component. Please see also the response to part (b).

- b. There are two areas where the PO/STA/BR MISC cost pool differs from the MODS 1MISC cost pool:

First, from the response to a) above, note that the PO/STA/BR MISC cost pool includes operations where the MODS-based counterparts are not included in the MODS 1MISC cost pool because they are already identified as separate MODS cost pools: the Computer Forwarding Systems and Mark-Up (LD49 cost pool at the Plants); Business Reply/ Postage due (BUSREPLY at the Plants); Bulk Mail Acceptance (LD79 at the Plants); Empty Equipment Work (1EEQMT at the Plants); Damage Repair/Rewrap (REWRAP at the Plants).

Second, the difference in the assignment of "quasi-administrative" tallies to mail processing versus administrative and window service functions reflects differences in the nature of the "administrative" work at the different types of facilities. In MODS facilities, LDC 18 work is, by definition, mail processing-related—other MODS operations and LDCs would have been used for non-mail processing administrative functions. LDC 48 work (and other PO/STA/BR "administrative" work), in contrast, includes work performed in support of window service and delivery services. See USPS-LR-L-55 at I-27 and I-29. Therefore, it is appropriate to treat "administrative" activities in the MODS 1MISC cost pool as mail processing related (i.e., in a C/S 3.1 cost pool) whereas the PO/STA/BR "administrative" costs are appropriately treated as C/S 3.3 (general) administrative activities and are distributed *more broadly*.

Response of United States Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of Magazine Publishers of America, Inc., and Alliance of Nonprofit  
Mailers

- c. From the responses to (a) and (b) above, it can be seen that the 'piggyback' distribution approach over mail processing cost pools is not appropriate for the PO/STA/Br cost pool. The composition of the PO/STA/BR MISC cost pool identifies specific operations, rather than quasi-administrative activities in mail processing as for the MODS 1MISC cost pool. In addition, the LDC 48 operations are defined such that these operations support Customer Services (which would include Window Services and Administrative Services) and *Delivery Services*, all of which go beyond the mail processing activities in the PO/STA/BR office group. Thus, it is appropriate that these tallies be included with the Administrative cost components.

Response of United States Postal Service Witness Eliane Van-Ty-Smith,  
USPS-T-11, to Interrogatory of Magazine Publishers of America, Inc., and  
Alliance of Nonprofit Mailers

**MPA/USPS-T11-3.** This question refers to:

- Your testimony (USPS-T-11) at page 19, lines 6-8, where you state:  
"Thus, the volume variable cost for the Function 1 support cost pool is distributed in proportion to all Function 1 and LDC 79 volume-variable costs."
- USPS-LR-L-43 at page 41, which shows CRA Periodicals Flats Mail Processing Unit Costs.

Please list the cost pools (by cost pool number shown on Page 41 of USPS-LR-L-43) that are used to distribute the volume variable cost for the Function 1 support cost pool.

**RESPONSE.**

The cost pools (by cost pool number shown on Page 41 of USPS-LR-L-43) that are used to distribute the volume variable cost for the Function 1 support cost pool are #1 through #34 and #48.

Response of United States Postal Service Witness Eliane Van-Ty-Smith, USPS-T-11, to  
Interrogatory of Pitney Bowes Inc.

**PB/USPS-T11-1.** In R2005-1 you testified,

For the miscellaneous cost pools at post-office, stations, and branches, the handling tallies are used and the distribution key for the non-handling tallies is based on all mail processing handling tallies at post-offices, station, and branches. USPS-T-11 at 19.

Please describe any changes to this method for R2006-1 and the reasons for those changes.

**RESPONSE.**

There have been no changes to the PO/STA/BR MISC cost pool distribution key method for R2006-1.

**FIRST SET OF INTERROGATORIES TO WITNESS VAN-TY-SMITH (USPS-T-11)**

TW/USPS-T11-1 Please refer to Table I-2B in LR-L-55, which shows MODS hours (excluding BMC, ISC hours) for each MODS number, with MODS numbers arranged according to LDC grouping.

- a. Please confirm that the table contains all MODS numbers used for mail processing activities. If not confirmed, what other numbers are used and what do they represent?
- b. For all MODS numbers where MODS measures volumes, please provide the first handling pieces, total pieces handled and total pieces fed, corresponding to the MODS hours shown in Table I-2B. Please provide this information in a spreadsheet format compatible with the format used for Table I-2B.
- c. Please provide, in a spreadsheet format, a list of all MODS numbers used in BMC's during FY2005, along with BMC MODS hours recorded in FY2005 and, where applicable, the corresponding measures of first handling pieces, total pieces handled and total pieces fed.

RESPONSE

- a. Not confirmed. Table I-2B does not include MODS operation numbers for LDC 41-44, and 48. The dollars for those LDCs (see Table I-2i in LR-L55) are added to the nonMODS dollars (see Table I-1A-I in LR-L-55) and IOCS tally responses to Questions 18 are used to partition the aggregated total dollars into functions and cost pools.
- b-c. Redirected to witness Bozzo, USPS-T-12

TW/USPS-T11-2 You say in Part I.A of LR-L-55 about the development of cost pools for IOCS data that:

“First, clerk and mailhandler costs are separated into three facility groups, BMCs, MODS 1&2, and non-MODS offices (see *ytdamt*, Table I – 1A), based on finance numbers.”

LR-L-9 includes the file PRCFLAT05.DAT, which is a flat file version of the IOCS data. It is explained (at Page H-3 of the LR-L-9 documentation) that in creating this file, the contents of field F2 (finance number) were recoded.

- a. Please provide a list of the recoded finance numbers, as they appear in PRCFLAT05.DAT (as opposed to the real finance numbers), that represent the BMCs. Please identify separately the finance number for the BMC that you say has been moved to the ISC cost pool.
- b. Please provide, in a spreadsheet, a list of the recoded finance numbers that correspond to MODS 1&2 offices, as those finance numbers are written in PRCFLAT05.DAT.
- c. Please provide a list of the recoded finance numbers, as written in PRCFLAT05.DAT, that correspond to ISC facilities.

#### RESPONSE

- a. The encrypted BMC finance numbers can be found in the SASPROGRAMS directory of the attached CD of USPS-LR-L-55, under the MBC program (see MBC.rtf, section captioned “encrypted BMC numbers”) of the OTHER subdirectory. The finance number for the BMC which has been moved to the ISC cost pool is not included in the MBC program but in the MODS 1&2 offices in the ISC cost pool (see responses to b. and c. below). The list for the BMCs is the same as the one in the MBC program in Docket R2005-1, except for the exclusion of that finance number.
- b. The encrypted MODS 1&2 finance numbers can be found in the SASPROGRAMS directory of the attached CD of USPS-LR-L-55, in the MODSFIN file (see MODSFIN.rtf) of the MODS subdirectory. The finance number for the BMC which has been moved to the ISC cost pool is 688333.

- c. The ISC encrypted finance numbers can be found in the SASPROGRAMS directory of the attached CD of USPS-LR-L-55, in the MOD1POOL program (see MOD1POOL.rtf, section captioned "Establish ISC Cost Pool") of the MODS subdirectory. It includes the finance number for the BMC which has been moved to the ISC cost pool.



TW/USPS-T11-3

- a. Do stations and branches of a MODS 1&2 office normally use the same finance number as the main office? If there are exceptions, please explain.
- b. Do annexes associated with a MODS 1&2 facility normally use the same finance number as the main office? If there are exceptions, please explain.
- c. Are all MODS 1&2 offices "plants", as you use the term? If no, do you still group them with the "plants" in your cost distribution methodology? Please provide a list of any MODS 1&2 offices that are not "plants."

RESPONSE

- a. If I interpret a MODS 1&2 'main office' to mean a customer service facility or post office (more commonly designated as AO or associate office), my understanding is that a station and branch (mail distribution/delivery unit) that is physically located in a separate facility from the main office normally uses a finance number separate from that of the main office. I am told the exceptions may be units that are too small to have a resident manager and a separate finance number.
- b. If I interpret a MODS 1& 2 'main office' to mean a 'plant' (commonly designated as a P&DC or P&DF or Processing & Distribution Center/Facility), my understanding is that a mail processing annex unit normally uses the same finance number as the plant. I am told the exceptions are annexes with long-term operations and/or which perform multiple processing functions.
- c. No, not all MODS 1&2 offices are 'plants.' For example, post offices / associate offices, stations and branches are not 'plants' as they do not report predominantly Function 1 operations (see footnote 5 of my testimony). For these facilities, the mail processing operations associated with LDC 41-44 and 48 are not grouped with the 'plants' in the cost distribution methodology but with the 'post-offices, stations and branches'

(see page 4 of my testimony); the remaining operations associated with other LDCs such as LDC 49 or LDC 79 are still grouped with the 'plants.' The attached list, provided as an rtf file, provides the encrypted finance numbers for MODS 1&2 offices that are not considered 'plants.'

TW/USPS-T11-4

- a. If the first character in field F1 on a given clerk and mailhandler tally is '1', does that mean that the tally is from either a MODS 1&2, BMC or ISC facility? If no, please explain what it does mean. Please explain also if your methodology makes any use of the first character in Field F1.
- b. If the answer to Question 18A1 in a given tally is 'A' (BMC), does that mean that the tally belongs to the BMC group as you define it? If no, why not?
- c. If the answer to Question 18A1 in a given tally is 'B' (P&DC/P&DF/ Mail Processing Annex/Priority/DDC/AMC/AMF/HASP), does that mean that the tally belongs in the "plants" group as you define it? If no, why not?
- d. If the answer to Question 18A1 is 'C' (International Service Center/ Outbound International Gateway), does that mean the tally belongs in the ISC cost pool as you define it? If no, why not?
- e. If the answer to Question 18A1 is 'D', does that mean the tally belongs in the Station & Branches/NonMODS group as you define it? If no, why not?
- f. If the answer to Question 18A2 on a given tally indicates that the sampled employee works at an annex, does that in any way affect the way you treat the costs represented by that tally in your cost distribution methodology? If yes, please explain how you use that information.

RESPONSE

- a. If the first character in Field F1 of a clerk and mailhandler tally is '1,' then the tally can be from a MODS 1&2, BMC or ISC finance number. However, not all MODS 1&2 tallies have a '1' as the first character in field F1; some MODS 1&2 tallies have a '4.' The '1' generally refers to MODS 1&2 finance numbers for 'plant' facilities such as those listed in question 4c below that report predominantly Function 1 operations. The '4' is usually associated with MODS 1&2 finance numbers for post offices, stations and branches—although it should be noted that there are some exceptions in these facilities that report predominantly *Function 1* operations.

The cost distribution methodology makes limited use of the first character in Field 1 in the assignment of tallies to a mail processing cost pool: it is only applicable to about one percent of MODS 1&2 tallies with no reported MODS operation codes or with invalid MODS operation codes (i.e. those that do not match any on the MODS operation code list, or those that are inconsistent with clerk and mailhandler MODS operation codes). For those tallies, the assignment to a mail processing cost pool is based on IOCS question 18, and the first character in field F1 helps determine whether the cost pool is in the 'plants' or in the 'post-offices, stations and branches.'

- b-e. The answers to Question 18A1 are not used to classify the tallies into the appropriate BMC, 'plant,' ISC or Stations & Branches/NonMODS group, except in the limited way described in the above response to Interrogatory 4a for tallies with invalid or no MODS operation codes. The finance number (see page 3 of my testimony and the response to Interrogatory #2 above) and the LDC 41-44 and 48 MODS operation codes (see page 4 of my testimony) are used to assign tallies to the appropriate group. Although there is a high degree of concurrence between the tally answers to Question 18A1 and the tally group based on finance numbers and MODS operation codes, the purpose of Question 18A1 is primarily to control the flow of data collection questions in IOCS (see USPS-T46 and USPS-T1).
- f. No.

TW/USPS-T11-5 Please answer the following regarding your use of the answers to Question 18B.

- a. If the answer to Question 18B on a given tally is 'H', does your methodology in all cases treat the costs associated with that tally as Window Service (Segment 3.2) costs? If no, please explain all exceptions.
- b. If the answer to Question 18B on a given tally is 'I', does your methodology in all cases treat the costs associated with that tally as Administrative (Segment 3.3) costs? If no, please explain all exceptions.
- c. If the answer to Question 18B on a given tally is one of the letters A through F, does your methodology in all cases treat the costs associated with that tally as Mail Processing (Segment 3.1) costs? If no, please explain all exceptions.

RESPONSE

- a-c. No. To assign tallies to Segment 3.1, Segment 3.2, or Segment 3.3, the answers to Questions 18B and 18B1 are used only for tallies associated with the BMC finance numbers, with the nonMODS finance numbers, and with the LDC 41-44, and 48 MODS operations of the MODS 1&2 finance numbers: answers A-G for Question 18B and A-F for Question 18B1 assign tallies to Segment 3.1, answers H for Question 18B and G for Question 18B1 to Segment 3.2, and answers I for Question 18B and H for Q18B1 to Segment 3.3. For tallies associated with MODS 1&2 finance numbers (excluding those for the LDC 41-44, and 48 operations), the MODS operation codes into which sampled employees are clocked which are reported in field Q18A3 are used to make that assignment; the answers to Questions 18B and 18B01 are used in a limited way only for tallies with no MODs operation code or an invalid operation code.

TW/USPS-T11-6 Table 3 in your testimony provides a breakdown of attributed costs per subclass within each mail processing cost pool. Please provide a corresponding breakdown, per cost pool and in a similar spreadsheet format, of the pool costs by all direct, mixed mail and "not-handling" activity codes, before the distribution of mixed mail and "not-handling" costs to direct codes.

RESPONSE

The breakdown of volume-variable costs for direct, mixed mail and not-handling activity codes by cost pool is listed in the Excel spreadsheet filed in USPS-LR-140. The Excel spreadsheet consists of three worksheets, Plants, PO/STA/BRs, BMCs. Two cost pools are not reflected in the worksheets as the cost pool tallies are not used for the cost distribution (see footnotes 1/ and 2/ of Table 2 in my testimony).

Response of United States Postal Service Witness Eliane Van-Ty-Smith, USPS-T-11, to Interrogatory of Time Warner Inc.

**TW/USPS-T11-7** Table A below contains some key characteristics of the IOCS tallies that cause Outside County Periodicals flats to be shown in the Postal Service's cost distribution as having incurred costs at manual letter operations in MODS plants. The ID column shows the position in which each tally was found in the dataset prcflat.dat in LR-L-9. The table also shows the values of Q18B, Q18D01, Q18D02, Q18D04 and Q23A01, in addition to MODS number and the dollar value in F9250. All tallies have activity code 2212, for Outside County flats.

- a. Please confirm that these tallies exist in the IOCS data base for FY2005.
- b. Please confirm that the predominance of the values "E" in both the Q18B and Q18D01 fields indicates that most of these tallies are observations of manual flats distribution rather than manual letter distribution.
- c. Please confirm that the values D in Q23A01 indicate that these are flats and not letters.
- d. Please assume that these tallies were from NonMODS offices and that MODS numbers therefore were not available. Please confirm that in that case you would have assigned most of the tallies in the table below to the MANF (manual flats) cost pool and not to the MANL pool.
- e. Assume that a tally from a NonMODS office contains at "D" in field Q18D01, but that the tally also identifies a flat mailpiece which gets activity code 2212. Would this tally be assigned to the MANL pool based on the above information? If you would need more information to determine which pool to assign such a tally to, please specify what additional information you would need. Additionally, if there is any other combination of field values that could cause a NonMODS tally with activity code 2212 to be assigned to the MANL cost pool, please specify.

**RESPONSE.**

- a. Confirmed.
- b. Confirmed that 41 of the 63 tallies indicate that the employee is assigned to manual flats distribution according to the IOCS question 18 activity. The cost pool assignment is based on the recorded MODS operation, to be consistent with the formation of the cost pool dollars.

Response of United States Postal Service Witness Eliane Van-Ty-Smith, USPS-T-11, to Interrogatory of Time Warner Inc.

- c. Confirmed.
- d. Hypothetically, If the tallies were from NonMODS offices, the 41 tallies containing "E" in field Q18D01, as noted in the response to part b, would be assigned to the MANF (manual flats) cost pool. If the NonMODS procedure were employed in this case, the main effect would be to shift a portion of the Periodicals volume-variable cost from MANL to MANF.
- e. *In this case, the tally would be assigned to the MANL cost pool. Note that it may be possible for some flat-shape pieces to be sorted in a manual letter distribution operation.*



R2006-1

Table A: Tallies of Outside County Flats at Manual Letter Sorting Operations								
ID	MOD	MODGRP	Q18B	Q18D01	Q18D02	Q18D04	Q23A01	F9250
372712	169	MANL	H	-	-	-	D	\$74,710.44
591277	168	MANL	F	-	-	-	D	\$114,073.96
586636	030	MANL	F	-	-	-	D	\$76,049.31
51690	044	MANL	F	-	-	-	D	\$53,680.72
547357	030	MANL	F	-	-	-	D	\$80,711.01
10873	030	MANL	F	-	-	-	D	\$74,875.03
583860	168	MANL	E	F	E	C	D	\$76,049.31
396322	169	MANL	E	F	D	C	D	\$73,560.68
374906	160	MANL	E	E	D	C	D	\$74,710.44
193073	160	MANL	E	E	D	C	D	\$74,489.11
373125	160	MANL	E	E	D	C	D	\$74,710.44
553761	030	MANL	E	E	D	C	D	\$80,711.01
219899	168	MANL	E	E	D	C	D	\$75,029.51
411074	160	MANL	E	E	D	C	D	\$73,560.68
592578	160	MANL	E	E	D	C	D	\$76,049.31
502827	168	MANL	E	E	D	C	D	\$93,052.02
553956	160	MANL	E	E	D	E	D	\$80,711.01
688599	168	MANL	E	E	D	C	D	\$83,323.53
372690	160	MANL	E	E	D	C	D	\$74,710.44
375719	030	MANL	E	E	D	B	D	\$74,710.44
42838	030	MANL	E	E	D	C	D	\$72,906.21
225676	160	MANL	E	E	D	C	D	\$75,029.51
225126	160	MANL	E	E	D	C	D	\$75,029.51
579066	169	MANL	E	E	C	C	D	\$76,049.31
394509	044	MANL	E	E	C	C	D	\$73,560.68
41026	160	MANL	E	E	C	C	D	\$72,906.21
579512	168	MANL	E	E	C	C	D	\$76,049.31
212565	150	MANL	E	E	C	C	D	\$75,029.51
403512	160	MANL	E	E	C	C	D	\$73,560.68
106465	160	MANL	E	E	C	C	D	\$85,976.12
372703	168	MANL	E	E	C	C	D	\$74,710.44
51006	030	MANL	E	E	C	C	D	\$53,680.72
403235	168	MANL	E	E	C	C	D	\$275,852.55
42347	160	MANL	E	E	C	C	D	\$72,906.21
367738	150	MANL	E	E	C	C	D	\$101,877.87
194208	160	MANL	E	E	B	C	D	\$74,489.11
218909	030	MANL	E	E	B	C	D	\$75,029.51
112808	160	MANL	E	E	B	C	D	\$85,976.12
200720	030	MANL	E	E	B	C	D	\$67,250.61
41587	169	MANL	E	E	B	H	D	\$72,906.21
297227	043	MANL	E	E	B	B	D	\$235,161.75
556270	030	MANL	E	E	B	C	D	\$80,711.01
223106	169	MANL	E	E	B	C	D	\$102,312.97
48750	030	MANL	E	E	A	C	D	\$109,359.31
212556	030	MANL	E	E	A	C	D	\$75,029.51

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404355	030	MANL	E	E	A	C	D	\$73,560.68
551732	030	MANL	E	E	A	B	D	\$80,711.01
211891	160	MANL	E	D	D	D	D	\$75,029.51
584966	168	MANL	E	D	D	C	D	\$76,049.31
8777	168	MANL	E	D	D	D	D	\$74,875.03
142966	160	MANL	E	D	D	C	D	\$97,670.50
143436	169	MANL	E	D	D	F	D	\$97,670.50
236975	169	MANL	E	D	D	C	D	\$47,773.35
232300	044	MANL	E	D	C	C	D	\$75,029.51
555425	044	MANL	E	D	C	C	D	\$80,711.01
215455	043	MANL	E	D	C	C	D	\$75,029.51
373628	040	MANL	E	D	B	C	D	\$74,710.44
43851	029	MANL	D	-	-	-	D	\$72,906.21
546757	150	MANL	D	-	-	-	D	\$80,711.01
524593	169	MANL	-	E	D	C	D	\$211,301.75
575703	044	MANL	-	E	D	C	D	\$76,049.31
397357	168	MANL	-	-	-	-	D	\$73,560.68
236577	169	MANL	-	-	-	-	D	\$65,145.47

**Response of United Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of Time-Warner Inc. Redirected from Witness Miller**

**TW/USPS-T20-13** Please provide, based on IOCS tallies, an estimate of the portion of the "Allied" unit costs for Outside County Periodicals flats at NonMODS offices, stations and branches that represent bundle sorting and functions auxiliary to bundle sorting such as those referred to in part b of the preceding interrogatory. Please include a description of how the estimate is derived, the piggyback factors and volume variability factors used in the derivation and the portion of those costs that come from (1) NonMODS offices and (2) Function 4 stations and branches. Additionally, please identify the portion of the estimated costs that is for incoming secondary bundle sorting.

**RESPONSE:**

The estimated portion of the "Allied" unit costs for Outside County Periodicals flats at Post-Offices, Stations and Branches (PO/STA/BR) for bundle sorting is 37 percent.

The estimate was derived using costs for handling tallies in the 'ALLIED' cost pool that are associated with activity code 2212 (i.e. outside county periodicals) and with bundles (it is assumed that this criterion probably covers by and large the activities specified in TW/USPS-T20-12b). These tallies include: 1) the direct tallies with activity code 2212 containing 'B' (bundles) in IOCS field Q20; 2) the bundle portion of the 'identified' mixed mail container tallies that are distributed to activity code 2212; and 3) the bundle percentage of the 'unidentified' and empty container tallies distributed to activity code 2212, where the bundle percentage is based on the bundle portion of the 'identified' container tallies. (For further reference, see sections B.2.3.a *Distribution of Mixed Tallies to Subclasses* in my testimony.)

The estimated 37 percent would apply to the PO/STA/BR 'Allied' cost pool unit cost of 1.045 cents for Outside County Periodicals flats derived by witness Smith in LR-L-53, which already includes the piggyback factor and volume-variability factor.

Because the mixed mail distribution is done in the aggregate for NonMODS offices and Function 4 stations and branches, and also for all basic functions combined, it is not possible to obtain separate costs for them. However, "Allied"

**Response of United Postal Service Witness Eliane Van-Ty-Smith to  
Interrogatories of Time-Warner Inc. Redirected from Witness Miller**

direct tallies, which represent about 78% of all bundle handling tallies (direct and mixed) associated with activity code 2212, can provide some of those details. The direct bundle tallies for activity code 2212 in the 'Allied' cost pool show that about 75% are from NonMODS offices and 25% from Function 4 stations and branches. Those direct bundle tallies also show that about 96% have the 'incoming' basic function (as coded in IOCS field F261), 3% have the 'outgoing' basic function, and 1% have an undetermined basic function. F261 does not indicate whether the 'incoming' is primary or secondary. Additional IOCS information on primary and secondary scheme is collected only for piece distribution operations and is therefore not available for allied operations.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS VAN-TY-SMITH,  
USPS-T-11, TO INTERROGATORY OF VALPAK DIRECT MARKETING  
SYSTEMS, INC. AND VALPAK DEALERS' ASSOCIATION, INC.

**VP/USPS-T11-6.** Please refer to the response to VP/USPS-T11-4(a).

- a. Please explain how volume variable costs of the DPS cost pool are distributed to the different classes and subclasses of mail with letter-shaped volume that is DPS'd.

**RESPONSE**

There is no separate DPS cost pool. DPS operations are part of the 'MPBCS, DBCS, CSBCS' cost pool (SAS name 'D/BCS') at the Plants and the 'Automated/Mechanized' cost pool (SAS name 'AUTO/MECH') at Post Offices, Stations and Branches. The volume-variable cost for each of these two cost pools is distributed to subclasses using the individual cost pool direct, mixed, and not-handling tallies based on the procedure described in Section B.2.3 Cost Pool Distribution Keys of my testimony. The distribution key procedure is applied at the cost pool level and does not differentiate DPS operations from other operations in the cost pool.

1 CHAIRMAN OMAS: Is there any additional  
2 written cross-examination for Witness Van-Ty-Smith?

3 (No response.)

4 CHAIRMAN OMAS: Mr. Heselton, would you  
5 please identify your next witness so I can swear him  
6 in?

7 MR. HESELTON: Yes, Mr. Chairman. The Postal  
8 Service calls A. Thomas Bozzo to the stand.

9 CHAIRMAN OMAS: Mr. Bozzo, would you raise  
10 your right hand?

11 Whereupon,

12 A. THOMAS BOZZO

13 having been duly sworn, was called as a  
14 witness and was examined and testified as follows:

15 CHAIRMAN OMAS: Please be seated.

16 THE WITNESS: Thank you.

17 CHAIRMAN OMAS: Counsel, you may proceed.

18 MR. HESELTON: Thank you, Mr. Chairman.

19 (The document referred to was  
20 marked for identification as  
21 Exhibit No. USPS-T-12.)

22 DIRECT EXAMINATION

23 BY MR. HESELTON:

24 Q Mr. Bozzo, would you introduce yourself for  
25 the record, please?

1           A     My name is A. Thomas Bozzo. I'm a vice  
2     president with Christensen Associates, Madison,  
3     Wisconsin.

4           Q     Earlier you were handed two copies of a  
5     document entitled Direct Testimony of A. Thomas Bozzo  
6     on Behalf of the United States Postal Service marked  
7     as USPS-T-12.

8           A     I have them.

9           Q     Have you had a chance to examine these  
10    documents?

11          A     Yes.

12          Q     Was this testimony prepared by you or under  
13    your direction and control?

14          A     Yes, it was.

15          Q     Do you have any changes or corrections to  
16    make?

17          A     No, I do not.

18          Q     And if you were to testify orally today your  
19    testimony would be the same?

20          A     It would.

21               MR. HESELTON: Mr. Chairman, I ask that the  
22    direct testimony, USPS-T-12, on behalf of the United  
23    States Postal Service and the associated library  
24    reference, USPS-LR-L-55, be received as evidence at  
25    this time.

1 CHAIRMAN OMAS: Are there any objections?

2 (No response.)

3 CHAIRMAN OMAS: Hearing none, I will direct  
4 counsel to provide the reporter with two copies of the  
5 corrected direct testimony of A. Thomas Bozzo.

6 That testimony is received into evidence.  
7 However, as is our practice, it will not be  
8 transcribed.

9 (The document referred to,  
10 previously identified as  
11 Exhibit No. USPS-T-12, was  
12 received in evidence.)

13 CHAIRMAN OMAS: Mr. Bozzo, have you had the  
14 opportunity to examine the packet of written cross-  
15 examination provided to you this morning?

16 THE WITNESS: I have, Mr. Chairman.

17 CHAIRMAN OMAS: If those questions contained  
18 in that packet were posed to you orally today, would  
19 they be the same as those you provided the Commission  
20 previously in writing?

21 THE WITNESS: They would. I would just like  
22 to note two corrections that were incorporated in the  
23 packets.

24 The attachments of interrogatory responses  
25 from Docket No. R2000-1 mentioned in the responses to



1 Interrogatories UPS/USPS-T-12-22 and UPS/USPS-T-12-25  
2 had not originally been attached.

3 Those responses have been included, or the  
4 attached responses have been included in the packets.

5 CHAIRMAN OMAS: There is also a response to  
6 the following Presiding Officer's Information Request  
7 that I would like to enter into the evidentiary record  
8 at this time. It's POIR No. 10, Question 6.

9 Mr. Bozzo, if you were asked to respond  
10 orally to these questions here today would your  
11 answers be the same as you had previously provided to  
12 us in writing?

13 THE WITNESS: They would.

14 CHAIRMAN OMAS: I am providing two copies of  
15 those answers to the reporter and direct that they be  
16 admitted into evidence and transcribed.

17 (The document referred to was  
18 marked for identification as  
19 Exhibit No. POIR No. 10,  
20 Question 6 and was received  
21 in evidence.)

22 //

23 //

24 //

25 //

Response of United States Postal Service Witness Bozzo (USPS-T-12)  
To POIR No. 10, Question 6

6. At page 13 of USPS-T-12, Postal Service witness Bozzo states:

My understanding is that the Evolutionary Network Development (END) changes may alter the identities of origin and destinating plants (LPCs and DPCs) and that Regional Distribution Centers (RDCs generally created from existing facilities) will assume ADC and AADC functions. See Docket No. N2006-1, USPS-T-1 at 11-12. However, existing sorting technologies will remain in use, and the general organization of sorting activities appears likely to undergo evolutionary rather than revolutionary changes in the near future. In particular, the basic organization of processing at originating, destinating, and transfer facilities will remain largely intact.

(Footnote omitted.)

This passage seems to understate the degree of change expected by the test year due to the network realignment initiative based on information made public elsewhere about the nature, scope, and timing of that initiative. At the Great Lakes Area Focus Group meeting in Chicago, Illinois, on February 9, 2006, postal management provided a public briefing on its END initiative. It characterized its network realignment initiative as a program that will cause "drastic change" on a national scale, resulting in a standardized and streamlined network. As of February of this year, according to management, the Postal Service's goal was to construct a future network that trims 675 "Function 1" facilities down to 407, consisting of 71 RDCs, 258 LPCs, 60-70 Airport Transport Centers (ATCs), and 5-8 Remote Encoding Centers.

As described by postal management, RDCs are intended to be the "backbone" of a shape-based network, serving as Surface Transport Centers (regional hubs) for mail of all classes, and processing bundles and package mail of all classes. Management reported that by next February, it expects to convert all HASPS to Surface Transfer Centers, and to have 22 to 24 RDCs in place. It plans to convert P&DCs into LPCs and DPCs in two major phases in 2006, with additional phases planned for in 2007. See Docket No. N2006-1, USPS-T-2 (Williams) at 12.<sup>1</sup>

If management's plans are carried out, it raises the prospect that by the 2008 test year, numerous P&DCs will have been upgraded to RDCs, which combine the roles of current ADCs, BMCs, and HASPS. As RDCs, these

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<sup>1</sup> The future network that the Postal Service uses for planning purposes is also described in Docket No. N2006-1. As of July, 2006, the Postal Service plans a future network consisting of 419 "Function 1" facilities, 69 RDCs, and 202 LDCs, and 103 DPCs. This is generally consistent with management's February description of the future network, but it assumes fewer LDCs. See response to Presiding Officer's Information Request No. 5, Question 7, filed June 9, 2006.

Response of United States Postal Service Witness Bozzo (USPS-T-12)  
To POIR No. 10, Question 6

facilities will be refitted with next-generation tray, bundle, and package sorting equipment, have greatly expanded service areas, and altered internal and external mail flows. See USPS-LR-N2006-1/23. Numerous P&DCs will also have been converted to LPCs, requiring larger capital stocks to process outgoing volumes for a wider service area, while numerous other P&DCs are converted to DPCs, losing processing roles, volumes, and equipment. The Postal Service expects to capture economies of scale in the reconfigured facilities through standardization of its distribution concept, plant layouts, and processing procedures. See the Postal Service's responses to interrogatories OCA/USPS-36, and Postcom/USPS-T-1-2 in Docket No. N2006-1.

The amount of network realignment that is expected to take place by the test year has a number of implications for mail processing variability modeling. Network realignment is intended to shift enough volume among processing facilities to require facilities to alter their equipment configurations and staffing levels and, thereby, their marginal costs. This appears to conflict with a crucial maintained assumption underlying the Postal Service's mail processing variability modeling, i.e., that an operation at a given facility will only experience incremental changes in volumes over the rate cycle. This assumption was invoked to justify using a facility-level fixed-effect model rather from (sic) a random effects or ordinary least squares model to estimate variability. In addition to these substantial volume shifts among facilities, network realignment intends to reconfigure numerous facilities to perform fundamentally different tasks in the new RDC-based network. These proposed changes are aimed at increasing the average labor productivity of all postal operations.

If substantial progress toward network realignment is made by the test year, it raises the following questions:

- a. Are the estimating equations on pages 52-53 of USPS-T-12 based on an assumption that the estimated fixed-effect at one facility may differ from the estimated fixed effect at another facility because of persistent differences in the facility's network role, mail mix, mail volume, plant layout, or management practices?
- b. In response to VP/USPS-T12-6 in Docket R2006-1, witness Bozzo states that "the purpose of my analysis was to estimate systemwide elasticities applicable to entire mail processing cost pools." The estimating equations for automated operations on pages 52-53 of USPS-T-12 contain the logarithm of the level of volume,  $\ln(\text{TPF})$ , and lagged values of this variable, and  $\ln(\text{TPF})^2$  and lagged values of this variable. In addition,  $\ln(\text{TPF})$  is interacted with  $\ln(\text{CAP})$ ,  $\ln(\text{DEL})$ ,  $\ln(\text{WAGE})$  and  $\ln(\text{TREND})$ . This implies that the elasticity of HRS with respect to TPF depends on all these factors. Doesn't this functional form for this estimating equation imply that the systemwide volume variability estimate for processing operations will depend on the level and mix of mail volume at all the mail processing facilities in the sample, and depend on the distribution of  $\ln(\text{CAP})$ ,  $\ln(\text{DEL})$ ,  $\ln(\text{WAGE})$  and  $\ln(\text{TREND})$  across the sample of facilities?

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- c. If the answer to the previous questions are affirmative, please state whether a model of mail processing cost variability by individual operation that uses a fixed-effects estimator that includes variables given in the estimating equations on pages 52-53 of USPS-T-12 and computes a systemwide estimate based on the current distribution of mail volume and mix across facilities, and the current distribution of  $\ln(\text{CAP})$ ,  $\ln(\text{DEL})$ ,  $\ln(\text{WAGE})$  and  $\ln(\text{TREND})$  across facilities, is an appropriate one to predict the impacts of the major network realignment that will be under construction in the test year? If so, why?
- d. As noted above, the Postal Service's mail processing cost variability models contain regressors that are intended to control for unobservable processing plant characteristics that impact the level and sensitivity of labor costs to TPF. The "fixed" effects control for persistent unobservable plant characteristics that impact the level of  $\ln(\text{HRS})$ . [i] Isn't it true that the Hausman test for the appropriateness of the fixed effects estimator versus the random effects (or ordinary least squares) estimator relies on the fact that the fixed effects can be correlated with the regressors (the right-side variables in the equations on pages 52-53 of USPS-T-12)? [ii] Isn't it also true that correlation between the facility-specific random effects and the regressors implies that the probability limit of random effects and ordinary least squares slope coefficient estimates are not the same as the probability limit of the fixed-effects slope coefficient estimates? [iii] Further, isn't it true that the Hausman test examines the validity of the lack of correlation between the regressors and the random effects? Therefore, wouldn't a statistically significant difference between the coefficient estimates in the fixed effects and the random effects models be evidence in favor of the alternative hypothesis, i.e., that the facility-specific effects are correlated with the regressors, including  $\ln(\text{TPF})$ ? [iv] The hypothesis testing result reported in USPS-T-12 rejecting the random effects assumption in favor of the fixed effects assumption implies correlation between the fixed effects and  $\ln(\text{TPF})$ . The cross-sectional correlation between the fixed effects and  $\ln(\text{TPF})$ , and the fixed effects and other right-hand side regressors, implies that if there were substantial changes in these regressors this would result in a significantly different facility-specific effect under the re-organized postal network. Please resolve this apparent contradiction between assuming that the fixed effects of a facility will be invariant to significant changes in volume, with the hypothesis testing result that indicates that there is cross-sectional correlation between  $\ln(\text{TPF})$  and the facility-specific effect.
- e. Given the answer to the previous question, please discuss why a fixed effects estimator is capable of accurately modeling the variability of the mail processing network in the test year when an RDC-based network will be under construction, and many plants will have radically different capital stocks, service areas, and network roles.

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Response.

The preamble to the questions raises a number of issues regarding the scope and applicability of the Base Year mail processing volume-variability analysis, as well as the effects of network realignment on the analysis, that merit discussion before I address the Commission's specific questions.

The Commission is justified in being concerned about the applicability of the models going forward prior to adopting a better-founded analysis than its current 100 percent variability assumption. In this regard, the Commission should be aware that the Base Year econometric analysis primarily covers operations that would undergo evolutionary rather than revolutionary changes due to network realignment, especially in the time frame of the Test Year, consistent with my statement in the quoted passage from USPS-T-12.

A large majority of the costs covered by the econometric volume-variability analysis—80 percent—are in letter and flat piece sorting operations in which the outgoing (LPC) and incoming (LPC and DPC) piece sorting operations will substantially resemble their current P&DC counterparts. I am informed that the AMP facility consolidation process has been advancing more slowly than was originally indicated in Docket No. N2006-1, with several of the FY 2006 AMP studies having been concluded without action and few of the remaining studies in final review or implementation stages of the process. This would tend to further

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limit the effects of facility consolidation over the current Base Year to Test Year time horizon.

The remaining 20 percent of costs are in mechanized bundle (SPBS) and manual parcel and Priority Mail operations. The APPS, the equipment used in the cornerstone operations for RDC automated bundle processing, is too new to have sufficient data for the econometric models, and so is presently outside the scope of the analysis; by the time sufficiently long APPS data series are available, those data will reflect the RDC-based processing environment. Nor is there any evidence for the existing SPBS operation that suggests that variabilities differ systematically by the scale of the operation (see the response to Docket No. N2006-1, POIR No. 6, Question 1). My understanding from sources with operational knowledge of the changes is that the number of facilities processing parcels and Priority Mail will not change dramatically by the Test Year.

When AMPs are implemented, the scale of some operations will indeed increase. However, since most AMPs involve absorbing mail processing operations (or portions thereof) at smaller facilities into considerably larger neighboring plants, to characterize the changes as "radical" on a systemwide basis is inaccurate. This is particularly the case for consolidations of outgoing mail processing, since it is generally not necessary to expand a plant's capital stock at all to accommodate mail volumes from neighboring facilities. Stocks of automated

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piece sorting equipment are sized for the much larger (due to presorting and greater depth-of-sort) incoming operations. For example, BY2005 incoming workload is three times larger than outgoing workload for BCS operations and 2.5 times larger than outgoing workload for AFSM 100 operations. Thus, it would be possible to radically consolidate outgoing processing (and managed mail operations) without significant changes to capital equipment stocks.

The preamble to the question, in claiming

...that an operation at a given facility will only experience incremental changes in volumes over the rate cycle [is a critical assumption] to justify using a facility-level fixed-effect model rather from (sic) a random effects or ordinary least squares model to estimate variability

mischaracterizes the motivation for the fixed-effects analysis. The facility-level fixed-effects model is motivated by the underlying economic "experiment" that is appropriate for the measurement of mail processing marginal costs; further, use of the fixed-effects model specifically reflects the fact that after time-varying factors are taken into account (including MODS volumes, the size of the sites' delivery networks, and capital input quantities), there remain significant site-specific (or time-invariant) cost-causing factors. Prof. Mark Roberts did an excellent job of describing the key issues during the March 14, 2006, workshop on his mail processing model (Transcript, March 14, 2006 workshop, at 37-40), specifically in the context of the planned network realignment:

[Q.:] ...[O]ne of the things that we've been seeing from other cases filed recently is how much the Postal Service has

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tried to reorganize its network starting now, I guess, in 2001 it had an area mail processing initiative where they tried to consolidate the functions at certain plants, taking away, for example, outgoing sorts from smaller plants, consolidating at larger plants. Now, *they're trying to reconfigure the network to apparently more closely resemble a hub and spoke configuration than what they have now.* Apparently, [these] are quite extensive reconfigurations that they have been doing and contemplate doing.

My question is does that make the particular role that a particular plant plays in the network so volatile that a fixed effect approach may not be valid?

MR. ROBERTS: A fixed effect is correcting for a number of things in the model. Let me back up and explain. Here's what I view the fixed effects as doing, okay? In these models. Because I use them as does the Postal Service, so I think they're appropriate to use and here's the reason, is that there are certain things about plants that make them different, that one plant, even if we took all the observable characteristics that we could, the capital stocks in particular, and we took the exact same capital stocks from one plant and we stuffed them into another plant, would that *second plant replicate what goes on in the first one?*

I think the answer is probably no, it wouldn't, that there are going to be unique things about that second plant that make it different from the first one, even when we control as much as possible for the observable things that are different.

Another way of asking the question, sort of looking at the question, would be suppose we had a small plant and we had a large plant. Do we want to use the size difference in these two plants to estimate our output elasticity? Do we really want to use the fact that one plant is small, has small FHP, small hours, another plant is large, and look at the difference between those two and say, oh, yes, that's telling us about the output elasticity that we want to measure?

Effectively what we're saying is *if that little plant grew up, it would look like the big plant and I think that's probably not true in most case, that when you take the small plant and you try to make it handle the mail volumes and do things the way the large plant did, it's still going to come out with a different mix of hours and FHP.* And so the idea is that the cross plant differences are not really picking up the right kind of variation in the data.

They're picking up variation that is reflecting things that are permanent differences across plants. Someone mentioned earlier in the day whether they're two-story or one-story plants. That's the sort of thing a fixed effect would control for nicely.



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So what we're saying is we don't want to use that variation in the data to estimate the output elasticity. It's not the right kind of experiment in the data to estimate the output elasticity.

What we really want to estimate the output elasticity is if the plant got more FHP coming into it, more volume, what's the range of responses that that plant could make in terms of its use of hours?

So I think it's much more the time series variation in the data that we want to use for estimating the output elasticity than it is the cross plant differences.

Now, that said, both sources of variation, time variation and cross plant variation, have got useful information in them and they have some less than useful information in them and it's a matter of degree how much of one we're throwing away when we get rid of the other.

I think a reasonable compromise is to include the fixed effects because they deal with things that are likely to be non-reproducible or non-replicable differences across plants. So that would be my argument for using them.

Finally, it is important to keep in mind that the analysis in USPS-T-12 is not, nor is it meant to be, a stand-alone analysis of Test Year costs. As an input to the volume-variable cost calculations for the mail processing component of the Base Year CRA, its purpose is to contribute to the accurate measurement of the actual volume-variable costs of the Postal Service under the operating conditions prevailing in the Base Year. Accurate estimates of Base Year CRA volume-variable costs are, in turn, important as major inputs into the estimation of Test Year costs in the rollforward model. It is within the rollforward model, not the Base Year CRA, that adjustments to reflect cost changes from future changes to the operational plan are made. (See Docket No. R2000-1, USPS-T-16 at 9-10.) And, insofar as the changes to the operational plan are expected to reduce the Postal Service's costs—and presumably to decrease or at least not increase mail

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processing marginal costs—the question would be how the *higher* marginal costs that would result, other things equal, from higher volume-variability factors such as those produced by biased estimators such as ordinary least squares would better measure forward-looking mail processing costs than the Postal Service's Base Year variabilities.

a. The recommended estimating equation specifications are based on the demonstration, through statistical hypothesis tests, of site-specific cost causing factors that do not vary (or vary minimally) over time. Since mail volume and mail mix do vary considerably over time, and indeed the relevant mail processing volumes (workloads) are explicitly included as right-hand side explanatory variables, those factors will not be captured by the site-specific fixed effects, which by construction reflect time-invariant facility characteristics. In his March 14, 2006 workshop, Prof. Roberts addressed the matter directly (Transcript of March 14, 2006 workshop at 40-42):

[Question]: I guess the thing I was focusing on is if the essential differences between plants don't seem actually to be fixed, then I guess what your response was that you sort of have an intuitive belief that the essential differences somehow are fixed even if you're doing radical reconfiguring.

MR. ROBERTS: Well, to the extent you're doing radical reconfiguring, too, it should show up in the time varying data and that's really what we're relying on to estimate these output elasticities. Think of the variation in the data, some of it's systematic and permanent across plants and some of it is time varying for both plants. If the system is under reconfiguration and volumes are being shifted from one plant to another over time, that kind of stuff is picked up in the time dimension of the data and that's what we are using to estimate the output elasticities.

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So it's really a matter of -- I guess it's a broader issue that I've wrestled with in using this data and it comes out when I talk about quarterly variation in this paper as what's the right experiment in the data, what's the right source of variation to use in estimating the output elasticity that we're after?

Ideally, the experiment we would like to do is take a plant and control the amount of mail that's going into the plant over time. So one day we get a million pieces, the next day we give it two, we give it three and we watch how the plant responds in terms of its hours used. If we could run a controlled experiment to measure the output elasticity, I think that's what we would do. We would just vary the volumes going into the plant and watch how the plant responds with hours.

So what we want when we approach a data set like the MODS data set, I approach it saying where is that kind of variation showing up in the data? Is it showing up in differences between a small plant and a large plant? No, I don't think so. I don't think that's the kind of data variation [I] want to use.

Is it showing up in the time series variation for an individual plant? Yes, I think it is because now what we're seeing is, yes, a plant is in operation in a low quarter and then it moves to a busy quarter and volumes increase by 25 percent but that's reality, the plant is getting 25 percent more volume and it's dealing with it. So I look at the data, the quarterly variation, I say that's a good source of variation to use because that really is approximating the kind of experiment that we'd like to run for measuring the output elasticity, whereas I don't think the cross plant differences is the right kind of experiment.

While there are a priori operational and theoretical considerations that originally led the Postal Service to consider panel data fixed effects models, the recommendation that such models be employed in the development of base year costs is based on the repeated showing that alternative regression models that do not control for site-specific fixed effects are to be rejected as producing biased and inconsistent estimates of volume-variability factors. (Please see USPS-T-12 at 73-74; Docket No. R2005-1, USPS-T-12 at 51-52; Docket No. R2001-1,

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USPS-T-14 at 63-64; Docket No. R2000-1, USPS-T-15 at 122-124; Docket No. R97-1, USPS-T-14 at 39-46.)

b. Yes. Naturally, the results of an econometric analysis will depend on the data. More specifically for econometric analyses using flexible functional forms such as the translog, quadratic, and the like, economic quantities of interest such as elasticities are functions of coefficients and data. This requires that the elasticities be evaluated at suitable values of the data. For the mail processing analysis, the purpose as noted above is to obtain accurate elasticities for use in the development of Base Year costs, so the elasticities are evaluated using base year average values of the data. Please see also Docket No. R2000-1, USPS-T-15 at 72-79. My understanding is that related procedures are or have been employed in other cost segments where the Base Year volume-variable cost methods involve flexible functional forms.

c. As noted in response to part (b), the choice of evaluating the translog-based elasticities using Base Year data is intended to yield accurate estimates applicable to the Base Year CRA. Moreover, my understanding is that the *effects of network realignment on Test Year costs would be implemented as a cost reducing program in the rollforward model.*

In principle, it would be possible to evaluate the mail processing elasticities at other in- or out-of-sample values of the data. (For instance, in Docket No. R97-1, *the mail processing elasticities were evaluated at the overall sample means, rather than the means for the Base Year observations.*) The practical question is

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how much a hypothetical set of alternative out-of-sample values would differ from the Base Year values to reflect changes in workloads, delivery points, capital input, trend effects, and so on, and how sensitive the elasticity calculations are to the changes.

In fact, elasticities from the translog models are not very sensitive to the within-sample values of the data used to evaluate the elasticities. The output files in USPS-LR-L-56 report elasticities evaluated at the overall sample means as well as with the base year means. As shown in the table below, evaluating the *elasticities at the base year means instead of the overall sample means* has relatively small effects (ranging from -3 to +6 percentage points) with an unweighted average difference of one percentage point.

Effect of Elasticity Evaluation Method on Translog Elasticities

Cost Pool	BY 2005 Mean	Overall sample mean	Difference
AFSM 100	0.99	1.00	-0.01
Incoming BCS	0.82	0.83	-0.01
Outgoing BCS	1.06	1.03	0.03
OCR	0.78	0.81	-0.03
FSM 1000	0.72	0.72	0.00
SPBS	0.87	0.81	0.06
Average Difference			0.01

While it would be expected that AMP consolidations will gradually increase the size of a “typical” plant, given that the number of LPCs and DPCs will not differ tremendously from that of the P&DCs, P&DFs, DDCs, and post offices housing

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Function 1 operations presently in the USPS-LR-L-56 data set, it stands to reason that the “typical” LPC will not become dramatically larger than its P&DC or P&DF predecessor. As shown in the table below, changing the scale of the “average” operation used to evaluate the elasticities by large amounts has relatively small consequences for evaluation of the elasticities. Thus, the elasticity calculations should be relatively robust to facility size effects from network realignment.

Effect of “Typical” Operation Scale on Selected Translog Elasticity Evaluations

Operation	Scale Factor for TPH, Deliveries, and Capital	Evaluated Elasticity (*)
OCR	1X (BY 2005 values)	.783
OCR	2X	.735
OCR	0.5X	.830
SPBS	1X (BY 2005 values)	.866
SPBS	2X	.860
SPBS	0.5X	.872

(\*) See response to POIR No. 8, Question 10 for methodology

d. For clarity, I have divided this question into five subparts, each with a separate response.

(i) Not exactly. The Hausman test makes use of a general result for the asymptotic distribution of the difference between an estimator that is consistent under both the null and alternative hypothesis (in this case, the fixed effects estimator) and an estimator that is consistent and statistically “efficient” under the null hypothesis but inconsistent under the alternative hypothesis (in this case, the OLS and/or random effects estimator). Specifically, the OLS estimator is

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inconsistent in the presence of site-specific effects, and the random effects estimator is inconsistent if its assumption that the random effect and the regressors are uncorrelated.

(ii) Yes. If the site-specific effects are present and correlated with the regressors, the fixed-effects estimator is consistent—i.e., its probability limit is the “true” coefficient vector. In contrast, the OLS and random effects estimators are inconsistent under such conditions—i.e., their probability limits take some values other than the “true” coefficient vector.

(iii) Yes. The alternative hypothesis for the Hausman test of fixed versus random effects may be characterized as a violation of the random effects model’s assumption (the null hypothesis) that the individual effects and the regressors are uncorrelated. Most notably, rejection of this null hypothesis implies that the random effects estimates are inconsistent.

(iv) There is no contradiction. The question inappropriately concludes from the correlation between the site-specific effects and the explanatory variables that there is causality from the explanatory variables to the site-specific effects.

Indeed, to the extent there is any causal relationship, the direction of causality is the opposite of that implied by the question. As I noted in Docket No. R2000-1 (Tr. 15/6418-9; 6423):

I wouldn’t agree with the statement... that volume does cause network characteristics... The statement that I have in mind is at lines 19 and 20 of the testimony [Docket No. R2000-1, USPS-T-15 at 47] is that the observable network characteristics, which are primarily the location of the delivery points the Postal Service actually serves, are clearly not determined by mail volumes, but rather that the other way around; that the patterns of mail volumes

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and deliveries of pieces in the Postal Service are determined by the geographical dispersion and other characteristics of the Postal Service's network. That's what I mean by the statement...

*[I]t is also my belief that many of these hard-to-measure characteristics of [the] network -- for instance, its geographic dispersion or whether it is located in an urban or rural area -- are features of the facilities that are unlikely to change much if at all over time, so... the fixed effects terms are present in the model in part to capture the effects of unmeasured characteristics of the network.*

Please see also the response to part (a).

e. As stated above, the fixed-effects model is appropriate and indeed required for consistent estimation of the Base Year elasticities (volume-variability factors) and thus accurate estimation of Base Year volume-variable costs. Accurate Base Year costs are the appropriate basis for projecting Test Year costs, including the effects of network realignment activities between the Base Year and Test Year. As Prof. Roberts noted, see the response to part d(iv), the cost consequences of network realignment would, over time, manifest themselves in the time-varying data. Thus, the appropriate econometric method to address changes to operations is not to employ inconsistent estimators for Base Year variabilities, but rather to employ statistically consistent estimation methods, such as the fixed effects and fixed effects/instrumental variables models, in conjunction with periodic updating of the analysis to reflect current Base Year operating conditions. *Changes to future operating conditions are appropriately incorporated in the rollforward model to adjust Test Year costs..*



1           CHAIRMAN OMAS: Is there any additional  
2 written cross-examination for Mr. Bozzo?

3           MR. HESELTON: Mr. Chairman, excuse me. The  
4 two attachments that were just referred to, I think  
5 those are attachments of interrogatory responses from  
6 a prior hearing, and the original designations on  
7 those were UPS/USPS-T-15-22 and T-15-15.

8           THE WITNESS: No. It was T-12-22 and  
9 T-12-25 from this docket. The Docket No. R2000-1  
10 interrogatories were UPS/USPS-T-15-6 and -7.

11          MR. HESELTON: That corrects it.

12          CHAIRMAN OMAS: Is there any additional  
13 cross-examination?

14               (No response.)

15          CHAIRMAN OMAS: There being none, counsel,  
16 would you please provide two copies of the corrected  
17 designated written cross-examination of Witness Bozzo  
18 to the reporter?

19               That material is received into evidence and  
20 is to be transcribed into the record.

21                       (The document referred to was  
22 marked for identification as  
23 Exhibit No. USPS-T-12 and was  
24 received in evidence.)

25        //

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes, 2006

Docket No. R2006-1

DESIGNATION OF WRITTEN CROSS-EXAMINATION  
OF UNITED STATES POSTAL SERVICE  
WITNESS A. THOMAS BOZZO  
(USPS-T-12)

<u>Party</u>	<u>Interrogatories</u>
American Bankers Association and National Association of Presort Mailers	ABA-NAPM/USPS-T12-1  ABA-NAPM/USPS-T22-6 redirected to T12
Greeting Card Association	GCA/USPS-T12-1
Office of the Consumer Advocate	OCA/USPS-T42-5c redirected to T12
Pitney Bowes Inc.	PB/USPS-T12-1-4
Postal Rate Commission	ABA-NAPM/USPS-T12-1 ABA-NAPM/USPS-T22-6 redirected to T12 GCA/USPS-T12-1 MMA/USPS-T22-18 redirected to T12 MPA/USPS-T12-1-4 OCA/USPS-T42-5c redirected to T12 PB/USPS-T12-1-4 PRC/USPS-POIR No.8 - Q06, 07, 08, 09-10 redirected to T12 TW/USPS-T12-1-2 TW/USPS-T11-1b-c redirected to T12 UPS/USPS-T12-1-46 VP/USPS-T12-1-20 VP/USPS-T11-6b redirected to T12

PartyInterrogatories

Time Warner Inc.

TW/USPS-T12-1-2

TW/USPS-T11-1b-c redirected to T12

United Parcel Service

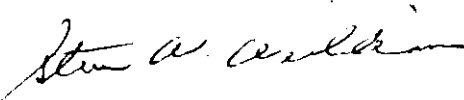
UPS/USPS-T12-1-2, 9-11, 14, 16, 21, 24-28, 30-31, 34, 37-40, 42-45

Valpak Direct Marketing Systems,  
Inc. and Valpak Dealers'  
Association Inc.

VP/USPS-T12-1-20

VP/USPS-T11-6b redirected to T12

Respectfully submitted,

Steven W. Williams  
Secretary

INTERROGATORY RESPONSES OF  
UNITED STATES POSTAL SERVICE  
WITNESS A. THOMAS BOZZO (T-12)  
DESIGNATED AS WRITTEN CROSS-EXAMINATION

<u>Interrogatory</u>	<u>Designating Parties</u>
ABA-NAPM/USPS-T12-1	ABA-NAPM, PRC
ABA-NAPM/USPS-T22-6 redirected to T12	ABA-NAPM, PRC
GCA/USPS-T12-1	GCA, PRC
MMA/USPS-T22-18 redirected to T12	PRC
MPA/USPS-T12-1	PRC
MPA/USPS-T12-2	PRC
MPA/USPS-T12-3	PRC
MPA/USPS-T12-4	PRC
OCA/USPS-T42-5c redirected to T12	OCA, PRC
PB/USPS-T12-1	Pitney Bowes, PRC
PB/USPS-T12-2	Pitney Bowes, PRC
PB/USPS-T12-3	Pitney Bowes, PRC
PB/USPS-T12-4	Pitney Bowes, PRC
PRC/USPS-POIR No.8 - Q06 redirected to T12	PRC
PRC/USPS-POIR No.8 - Q07 redirected to T12	PRC
PRC/USPS-POIR No.8 - Q08 redirected to T12	PRC
PRC/USPS-POIR No.8 - Q09 redirected to T12	PRC
PRC/USPS-POIR No.8 - Q10 redirected to T12	PRC
TW/USPS-T12-1	PRC, TW
TW/USPS-T12-2	PRC, TW
TW/USPS-T11-1b redirected to T12	PRC, TW
TW/USPS-T11-1c redirected to T12	PRC, TW
UPS/USPS-T12-1	PRC, UPS
UPS/USPS-T12-2	PRC, UPS
UPS/USPS-T12-3	PRC
UPS/USPS-T12-4	PRC
UPS/USPS-T12-5	PRC
UPS/USPS-T12-6	PRC
UPS/USPS-T12-7	PRC
UPS/USPS-T12-8	PRC
UPS/USPS-T12-9	PRC, UPS
UPS/USPS-T12-10	PRC, UPS

Interrogatory

UPS/USPS-T12-11  
UPS/USPS-T12-12  
UPS/USPS-T12-13  
UPS/USPS-T12-14  
UPS/USPS-T12-15  
UPS/USPS-T12-16  
UPS/USPS-T12-17  
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UPS/USPS-T12-39  
UPS/USPS-T12-40  
UPS/USPS-T12-41  
UPS/USPS-T12-42  
UPS/USPS-T12-43  
UPS/USPS-T12-44  
UPS/USPS-T12-45  
UPS/USPS-T12-46

Designating Parties

PRC, UPS  
PRC  
PRC  
PRC, UPS  
PRC  
PRC, UPS  
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PRC, UPS  
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PRC, UPS  
PRC

[illegible]

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of American Bankers Association and National Association of  
Presort Mailers

**ABA-NAPM/USPS-T12-1.** Starting on page 6, line 19, of your testimony (USPS-T-12), you indicate that one change you have made since R2005-1 is: "I reorganized the BCS and MPBCS cost pools" to reflect the fact of "gradual withdrawal of MPBCS equipment from service in favor of DBCS equipment."

(a) Because deployment of DIOSS is expected to be completed in 2007, have you similarly controlled for the phase out of older technology in favor of DIOSS technology? If so, please fully explain what you have done and how it affects your productivities and shares. If not, please explain fully why you have not controlled for this change, as you have done for DBCS.

(b) Similarly, because Phase 2 of PARS is expected to be completed in 2007, how, if at all, have you reflected this productivity improvement for UAA mail into your models? Please explain your answer fully.

(c) Have you incorporated into your model the "availability of extra sort bins on the DBCS equipment" that USPS witness McCrery refers to in his testimony (USPS-T-42) at page 11, line 11? If your answer is "yes," please explain fully how you have accounted for extra bins on DBCS equipment. If your answer is "no," why have you not incorporated the extra bins and how does that affect your productivities and shares?

Response.

- a. No, for the period covered by my analysis, DBCS-ISS and DIOSS-ISS hours have been small relative to MLOCR and other DBCS operations. The relevant change potentially requiring additional controls and/or cost pool reorganization going forward would be a large increase in DIOSS-ISS hours versus MLOCR hours.
- b. Presently, PARS (CROSS) operations are included in the outgoing BCS cost pool without specific controls for their presence. In FY 2005, the first year with appreciable CROSS data, those operations constitute only 3.3 percent of pool workhours and have average productivities in the range of other outgoing BCS operations. In this respect, CROSS handlings are similar to

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of American Bankers Association and National Association of  
Presort Mailers

other BCS handlings from the perspective of my models. Possible effects of PARS on UAA mailflows are beyond the scope of my analysis.

- c. No. The availability of the extra bins affects the amount of sorting improvement that can be carried out in a single sort, as witness McCreery describes, rather than the unit cost of the sort (or, the productivity in TPF/hour). Effects of the availability of extra sort bins for DBCS equipment on mailflows are beyond the scope of my analysis.



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)

To Interrogatory of American Bankers Association and National Association of  
Presort Mailers

Redirected from Witness Abdirahman (USPS-T-22)

**ABA-NAPM/USPS-T22-6.** The testimony of USPS witness McCrery reports the following letter mail throughputs of automation machinery:

MLOCR 29,000 pieces per hour

BDCS (sic) 37,000 pieces per hour

DIOSS 37,000 pieces per hour (approximate)

Yet each of your mail flow models, in column 2, reports pieces per hour that are substantially lower. Indeed, 14,830 (Auto 3 pass DPS under incoming sort) is the highest reported.

(a) Please fully explain what factors cause the rated machine capacities to exceed the operational figures contained in your mail flow models, e.g., machine down-time due to changing sort schemes, jams, etc.

(b) Please quantify the relative contribution of each such factor in causing the modeled productivities to fall below the throughput reported by Mr. McCrery.

Response.

(a) The throughputs reported by witness McCrery represent the rate at which machines process the mail while running. The productivities represent the number of pieces processed per workhour in the associated MODS operations. Thus, three main factors account for the difference. First, as witness McCrery notes in USPS-T-42, most machines (including the MLOCR and DBCS/DIOSS; notable exceptions are the AFCS and CSBCS) normally are staffed with two or more employees. Second, while runtime is the largest component of automated sorting operations, there is also substantial time involved in scheme changes, "quasi-allied labor," overhead activities, and miscellaneous other activities peripheral to the sorting operation. See USPS-T-12 at 26-32. Last, as a practical matter, factors such as machine jams and irregularities in mailflows to specific operations will limit the ability to achieve machines' nominal throughputs.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatory of American Bankers Association and National Association of  
Presort Mailers  
Redirected from Witness Abdirahman (USPS-T-22)

(b) MODS data do not indicate actual throughput levels. For an indication of the relative time spent in runtime and other activities, please see USPS-T-12, Table 2 (p. 27). As noted in the response to part a, witness McCrery describes staffing levels for various machine types in USPS-T-42.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of the Greeting Card Association

GCA/USPS-T12-1. Please refer to Figure 2 ("Major flat-shape mailflows") at page 20 of your prefiled testimony, and in particular to the upper left portion of Figure 2, depicting automation compatible "Collection Mail Stamped."

- (a) Please describe how collection mail flats for which cancellation is necessary are cancelled (i.e., manually or by machine).
- (b) If more than one method of cancellation is employed on the flats specified in part (a), please provide your best estimate of the proportion of those pieces cancelled by each such method.

Response.

Please see witness McCrery's response to GCA/USPS-T42-7.

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatory of Major Mailers Association  
Redirected from Witness Abdirahman

MMA/USPS-T22-18

Please refer to Library Reference USPS-LR-L-69, Section B, page 12, where you derive the marginal productivities for high volume QBRM.

- A. Please confirm that the 85% volume variability factor means that, if the volume being counted increases by 100%, the cost to count those pieces increases by just 85%. If you cannot confirm, please explain.
- B. Please explain specifically why, if you manually count 20,000 pieces of QBRM, the time necessary to count the 20,000 pieces is only 185% of the time to count 10,000 pieces rather than twice the time to count 10,000 pieces.

Response.

A. Confirmed.

B. Please see USPS-T-12 at page 83, lines 12-20.

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

**MPA-ANM/USPS-T12-1.** Please refer to the results of the activity analysis using IOCS data that you report in Table 2 on page 27 of your testimony (USPS-T-12).

- a. Please provide a complete list of the IOCS data fields used to perform this analysis.
- b. Please provide a complete description of the IOCS observations used to perform this analysis. This description should include descriptions of (i) the procedure used to select observations for each cost pool, and (ii) any data cleaning steps performed to eliminate potentially erroneous observations.
- c. Please provide a copy of the resulting data set, reflecting the data fields and observations specified in sections 1.a and 1.b above, that you used to perform this analysis.
- d. Please describe how the analysis was performed, including the IOCS activity codes grouped together into each of the five categories described in your analysis.
- e. Please provide standard deviations for the sample-based estimates in Table 2 and explain how they have been derived.
- f. Please describe the relationship between the sampled facilities in the IOCS analysis in Table 2 and the facilities included in the econometric analysis that produces the recommended volume variabilities reported in Table 1 on page 3 of your testimony. In particular, please indicate how many facilities are included in the IOCS analysis but omitted from the econometric analysis, and how many facilities are included in the econometric analysis but omitted from the IOCS analysis. Explain the reason for any such failures to match across the two sets of facilities.
- g. Please provide a cross-walk from the IOCS facility codes for the observations used in the analysis reported in Table 2 to the IDNUM facility code for the dataset used for the econometric analysis.

Response.

a. The IOCS data fields used to develop Table 2 are as follows:

- Setup and take-down time: Q18C11, Q18C12, Q18D04, Q18D02BC, Q18E16, Q18E18;
- Runtime: Q18C08, Q18C05BC, Q18D04, Q18D02BC;

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

- Container handling: Q21C01, Q21C02, Q21B01;
  - Other Handling: Defined as tallies handling mail not included in the above categories;
  - Breaks/Clocking: F9805, F9806;
  - Waiting: Q18C11, Q18C12, Q18D04, Q18D02BC, Q18E16, Q18E18;
  - Other: Defined as any tallies not included in one of the above categories.
- b. Table 2 uses all tallies assigned to the listed cost pools by witness Van-Ty-Smith. Please see the MOD1POOL.rtf, MODS05.rtf, and REMAP05.rtf SAS code in USPS-LR-L-55 for the details of the assignment criteria.
  - c. The input data set, including the fields used to produce Table 2 from USPS-T-12, may be found in USPS-LR-L-86, file clk\_mh\_mp05.dat.
  - d. PC-Fortran code that produces Table 2 and shows the specific criteria for the categories listed in the response to part (a) is provided as Attachment 1 to this response. There is no simple correspondence between IOCS activity codes and most of the activity categories reported in Table 2, so certain categories are based directly on IOCS question 18 responses as shown in the program code. The table provided as Attachment 2 to this response provides the output data, including a crosswalk between the categories used to produce Table 2 and Table D-1 in USPS-T-12.
  - e. Please see the table provided as Attachment 3 to this response.
  - f. The dataset in USPS-LR-L-56 used in the econometric volume-variability analysis attempts to cover all non-BMC processing and distribution facilities that report MODS data. The first IOCS sampling stage (finance number) does not sample those facilities with certainty. As a result, 68 site IDs in the USPS-LR-L-56 dataset are not present in the IOCS sample. These are generally post offices not designated as P&DCs or P&DFs that perform some mail processing.

The IOCS tallies for the cost pools listed in Table 2 include some tallies for air mail facilities not incorporated in the econometric analysis, as well as a smaller quantity of tallies from MODS post offices, stations, and branches. Sites included in the econometric database account for 98% of the tallies employed in Table 2; tallies taken at air mail facilities comprise approximately two-thirds of the remainder.

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
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- g. Please see the table provided as Attachment 4 to this response. Site IDs from the volume-variability dataset not listed in the table correspond to facilities not included in the IOCS sample.

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

**Attachment 1, Response to MPA-ANM/USPS-T12-1**

program mp\_activ\_fy05

c     Purpose: To rollup mail processing tallies by cost pool and  
processing activity

c             for USPS-T-12, Table 2 and Table D-1

implicit none

integer\*4 npool, ncat, ncon, nprc, npool2

parameter (npool=75) ! Cost pools

parameter (npool2=77) ! Cost pools including letter and flat

sorting

parameter (ncat=7) ! Number of processing activities

parameter (ncon = 13) ! Number of container types

parameter (nprc = 3) ! Number of PRC fixed/migration

categories

include 'iccs2005.h' ! (USPS-LR-L-86)

integer\*4 ier, ct, i, j, ldcl(npool2), modgrp, actv, icat

integer\*4 hand, item, icon, searchc, if260, iprc, k

real\*8 rf9250, dlrs, cost(ncat,npool2,nprc)

character\*16 costpool(npool2)

character\*15 activity(ncat)/'Setup/Take Down','Runtime','Cont'

Handling','Other Handling',

& 'Brk/Clock','Waiting','Other'/'

character\*8 prccat(nprc)/'Fixed','Migrated','Other'/'

character\*1 codes(26)/'A','B','C','D','E','F','G','H','I','J','K',

& 'L','M','N','O','P','Q','R','S','T','U','V',

& 'W','X','Y','Z'/'

c     Map of cost pools (USPS-LR-L-86)

open(10,file='costpools05\_intl.prn') !

11    format(3x,a16,i2,f10.0,f7.2,f10.0)

do i = 1, npool

    read(10,11) costpool(i), ldcl(i)

end do

close(10)

costpool(76) = 'Letter Sorting'

ldcl(76) = 0

costpool(77) = 'Flat Sorting'

ldcl(77) = 0

do i = 1, ncat



Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

Attachment 1, Response to MPA-ANM/USPS-T12-1

```

      do j = 1, npool2
        do k = 1, nprc
          cost(i,j,k) = 0.0
        end do
      end do
    end do
    print*, 'Matrices initialized '

    ier = 0
    ct = 0

c    Read in clerk/mail handler mail processing tallies - from
cadoc05_rep.f (USPS-LR-L-86)
      open(20,file='clk_mh_mp05.dat')  !
21   format(a693,15x,i2,5x,i5)

      do while (ier.eq.0)

        read(20,21,iostat=ier,end=100) rec,modgrp,actv

        ct = ct + 1

        if (modgrp.ge.51) then
          modgrp = modgrp + 10
        end if

c      new position for 'INTL ISC'
        if (modgrp.eq.39) then
          modgrp = 51
        end if

        read(f260,'(i2)') if260
        read(f9250,'(f10.0)') rf9250
        dlrs = rf9250/100000.

c      Handling category assignment
        if ((actv.ge.1000).and.(actv.le.4950)) then
          hand = 1 ! Direct tallies
        else if (((actv.ge.5300)
&             .and.(actv.le.5464)).and.(q20.ne.'G')) then
          hand = 1 ! Direct tallies (non-ssv)
        else if ((actv.ge.10).and.(actv.lt.1000)) then
          if (((f9805.ge.'1000').and.(f9805.le.'4950')).or.
&          ((f9805(1:2).ge.'53').and.(f9805(1:2).le.'54')))) then
            hand = 1 ! Direct tallies (ssv)
          else if (((actv.eq.900).or.(actv.eq.60)).and.
&          ((q20.eq.'B').or.(q20.eq.'E')).or.

```

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

Attachment 1, Response to MPA-ANM/USPS-T12-1

```

6
(q21c02.eq.'A').or.(q21c02.eq.'B').or.(q21c02.eq.'E').or.
&      (q20.eq.'D')) then
      hand = 1      ! Direct tallies (ssv)
      else if (q20.eq.'A') then ! revised for FY05
      hand = 1      ! Direct tallies (ssv)
      else if ((q20.eq.'B').or.((q20.eq.'E').and.(q21b01.ne.'H'))))
then ! revised for FY05
      hand = 2      ! Item
      else if
((q20.eq.'C').or.(q20.eq.'D').or.(q20.eq.'F').or.(q21b01.eq.'H')) then !
revised for FY05
      hand = 3      ! Container
      else
      hand = 4
      end if
      else if ((q20.eq.'B').or.((q20.eq.'E').and.(q21b01.ne.'H'))))
then ! revised for FY05
      hand = 2      ! Mixed Item
      else if
((q20.eq.'C').or.(q20.eq.'D').or.(q20.eq.'F').or.(q21b01.eq.'H')) then !
revised for FY05
      hand = 3      ! Mixed Containers
      else
      hand = 4      ! Not Handling Mail
      end if

      icon = 0

c      Container assignment
      searchc = 0
      do i = 1, ncon
      if (codes(i).eq.q21c01) then
      searchc = i
      exit
      end if
      end do
      icon = searchc

      if (q20.eq.'C') then ! Pallets
      if ((q21c02.eq.'A').or.(q21c02.eq.'B')) then
      icon = 10      ! USPS WestPak or Short Pallet Box -
assign to containers
      else if ((q21c02.eq.'C').or.(q21c02.eq.'D')) then
      icon = 11      ! Postal Pak or Tall Pallet Box -
assign to containers
      else

```

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

Attachment 1, Response to MPA-ANM/USPS-T12-1

```

        icon = 12          ! Other pallet
    end if
end if

    if (q21b01.eq.'H') then
        icon= 13
    end if

        if (q20.eq.'F') then    ! Combination of handling mail - treat
as 'Other' container
            icon = 13
        end if

c      Activity assignment
        if
((q18c11.eq.'E').or.(q18c12.eq.'F').or.(q18d04.eq.'E').or.(q18d02bc.eq.'
E').or.
&      (q18e16.eq.'G').or.(q18e18.eq.'D')) then ! Set Up/Take
Down
            icat = 1
        else if
((q18c08.eq.'Y').or.(q18c05bc.eq.'Y').or.((q18d04.ge.'B').and.(q18d04.le.
'D')).or.
&      ((q18d02bc.ge.'B').and.(q18d02bc.le.'D')))) then !
Machine running -incl manual dist
            icat = 2
        else if ((icon.gt.0).and.(modgrp.ne.85)) then ! Handling
Container
            icat = 3
        else if (hand.ne.4) then ! Other Handling
            icat = 4
        else if (((q18a05.eq.'B').or.(q18a05.eq.'C')).and.
&      (modgrp.le.51)) then ! Breaks/Clocking In/Out (MODS
only)
            icat = 5
            if ((actv.ne.6521).and.(actv.ne.6522)) then
                print*, 'Non break/clocking actv ', actv
            end if
        else if
((q18c11.eq.'I').or.(q18c12.eq.'I').or.(q18d04.eq.'G').or.(q18d02bc.eq.'
H').or.
&      (q18e16.eq.'H').or.(q18e18.eq.'E')) then
            icat = 6          ! Waiting for Mail or Machine Restart
        else
            icat = 7          ! All Other
        end if

```

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

**Attachment 1, Response to MPA-ANM/USPS-T12-1**

```

c      Cancellation machine running considered other handling
      if (modgrp.eq.18) then
        if (icat.eq.2) icat = 4
      end if

c      PRC fixed/migrated tally assignment (MPA-ANM/USPS-T-12-2)
      if
((actv.eq.6320).or.(actv.eq.6330).or.(actv.eq.6430).or.(actv.eq.6460).or.
&
(actv.eq.6480).or.(actv.eq.6495).or.(actv.eq.6500).or.(actv.eq.6511).or.
&
(actv.eq.6512).or.(actv.eq.6514).or.(actv.eq.6516).or.(actv.eq.6519).or.
&
(actv.eq.6610).or.(actv.eq.6620).or.(actv.eq.6630).or.(actv.eq.6420).or.
&
(actv.eq.6650).or.(actv.eq.6660).or.(actv.eq.6640).or.(actv.eq.6210).or.
&
(actv.eq.6240).or.(actv.eq.6525).or.(actv.eq.6230)) then
        iprc = 1          ! Fixed Mail Processing
      else if ((actv.ge.5020).and.(actv.le.5195)) then
        iprc = 2          ! Migrated
      else if ((actv.ge.6000).and.(actv.le.6200)) then
        iprc = 2          ! Migrated
      else if
((actv.eq.6521).and.((if260.eq.9).or.((if260.ge.24).and.(if260.le.26))))
then
        iprc =2          ! Migrated
      else if
((actv.eq.6523).and.((if260.eq.9).or.((if260.ge.24).and.(if260.le.26))))
then
        iprc =2          ! Migrated
      else if
((actv.eq.6524).and.((if260.eq.9).or.((if260.ge.24).and.(if260.le.26))))
then
        iprc =2          ! Migrated
      else if ((actv.eq.6521).and.((if260.eq.10).or.(if260.eq.17)))
then
        iprc =2          ! Migrated
      else if ((actv.eq.6523).and.((if260.eq.10).or.(if260.eq.17)))
then
        iprc =2          ! Migrated
      else if ((actv.eq.6524).and.((if260.eq.10).or.(if260.eq.17)))
then
        iprc =2          ! Migrated
      else
        iprc = 3          ! Other
      end if

```

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
Alliance of Nonprofit Mailers

Attachment 1, Response to MPA-ANM/USPS-T12-1

```

      if (icat.gt.0) then
        if
          (((modgrp.ge.1).and.(modgrp.le.4)).or.(modgrp.eq.6).or.((modgrp.ge.9).an
          d.(modgrp.le.10)).or.
            &      ((modgrp.ge.13).and.(modgrp.le.16)).or.(modgrp.eq.18))
        then
          cost(icat,modgrp,iprc) = cost(icat,modgrp,iprc) + dlrs
          if (((modgrp.ge.1).and.(modgrp.le.3)).or.(modgrp.eq.14))
        then
          cost(icat,76,iprc) = cost(icat,76,iprc) + dlrs !
Combine Letter Sorting
          else if
            ((modgrp.eq.4).or.(modgrp.eq.6).or.(modgrp.eq.13)) then
              cost(icat,77,iprc) = cost(icat,77,iprc) + dlrs !
Combine Flat Sorting
            end if
          end if
        else
          print*, 'Cat not assigned ', icat
        end if

      end do
100  print*, 'Read exit error ', ier, ' Record ct ', ct

      open(30,file='mp05_activity_pre.dat')
21  format(i2,ix,a16,1x,i1,1x,a8,'(1x,f15.5))

      do j = 1, npool2
        do k = 1, nprc
          if
            (((j.ge.1).and.(j.le.4)).or.(j.eq.6).or.((j.ge.9).and.(j.le.10)).or.
            &      ((j.ge.13).and.(j.le.16)).or.(j.eq.18).or.(j.gt.npool)) then
              write(30,31) j, costpool(j), k, precat(k),
            (cost(i,j,k), i = 1, ncat)
            end if
          end do
        end do
      end do
end

```

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Magazine Publishers of America and Alliance of Nonprofit Mailers

Attachment 2, Response to MPA-ANM/USPS-T12-1

Cost Pool	PRC Category	Setup/Take Down	Runtime	Container Handling	Other Handling	Breaks/Clocking	Waiting	Other	Total
D/BCSINC	Fixed	0	51	0	0	0	11,230	4,077	15,358
D/BCSINC	Migrated	0	0	0	0	849	0	260	1,109
D/BCSINC	Other	90,147	638,024	23,727	61,957	195,010	63	24,751	1,033,679
D/BCSOUT	Fixed	0	0	0	0	0	5,868	1,763	7,631
D/BCSOUT	Migrated	0	0	0	0	359	0	0	359
D/BCSOUT	Other	30,774	254,593	7,378	25,909	73,965	0	8,291	400,910
OCR/	Fixed	0	0	0	0	0	2,573	1,098	3,671
OCR/	Migrated	0	0	0	0	146	0	67	213
OCR/	Other	13,844	126,250	4,264	14,567	37,521	72	4,346	200,865
AFSM100	Fixed	0	73	0	0	0	8,024	1,666	9,763
AFSM100	Migrated	0	0	0	0	460	0	518	978
AFSM100	Other	40,857	358,907	9,276	19,552	90,513	0	9,356	528,461
FSM/1000	Fixed	0	0	0	0	0	2,335	566	2,901
FSM/1000	Migrated	0	0	0	0	0	0	97	97
FSM/1000	Other	13,901	150,429	3,069	10,678	38,263	76	4,178	220,594
SPBS OTH	Fixed	0	4,732	0	0	0	7,462	1,599	13,793
SPBS OTH	Migrated	0	0	0	0	339	0	0	339
SPBS OTH	Other	25,755	267,154	13,721	13,707	89,329	70	14,078	423,814
SPBSPRIO	Fixed	0	2,285	0	0	0	1,959	1,885	6,129
SPBSPRIO	Migrated	0	0	0	0	0	0	0	0
SPBSPRIO	Other	8,429	93,595	5,213	7,072	29,106	0	6,068	149,484
MANF	Fixed	0	0	0	0	0	5,165	2,378	7,543
MANF	Migrated	0	0	0	0	279	0	0	279
MANF	Other	10,598	155,254	11,841	11,444	46,001	0	6,763	241,901
MANL	Fixed	0	0	0	0	0	14,680	10,230	24,910
MANL	Migrated	0	0	75	0	2,155	0	1,573	3,803
MANL	Other	25,950	606,650	22,104	61,837	179,552	0	29,553	925,646
MANP	Fixed	0	72	0	0	0	2,633	1,176	3,881

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Magazine Publishers of America and Alliance of Nonprofit Mailers

Attachment 2, Response to MPA-ANM/USPS-T12-1

MANP	Migrated	0	0	0	0	73	0	0	73
Cost Pool	PRC Category	Setup/Take Down	Runtime	Container Handling	Other Handling	Breaks/Clipping	Waiting	Other	Total
MANP	Other	3,970	32,405	9,434	7,946	15,853	0	5,301	74,910
PRIORITY	Fixed	0	222	0	0	0	7,314	3,314	10,850
PRIORITY	Migrated	0	0	0	0	0	0	0	0
PRIORITY	Other	13,741	135,184	27,655	25,449	52,654	99	15,781	270,562
1CANCEL	Fixed	0	0	0	76	0	1,753	5,647	7,476
1CANCEL	Migrated	0	0	0	0	709	0	0	709
1CANCEL	Other	12,459	0	33,872	170,331	57,641	9,375	24,533	308,211
Letter Sorting	Fixed	0	51	0	0	0	34,352	17,168	51,571
Letter Sorting	Migrated	0	0	75	0	3,509	0	1,900	5,484
Letter Sorting	Other	160,716	1,625,517	57,473	164,270	486,048	135	66,941	2,561,101
Flat Sorting	Fixed	0	73	0	0	0	15,524	4,610	20,207
Flat Sorting	Migrated	0	0	0	0	739	0	615	1,354
Flat Sorting	Other	65,356	664,590	24,186	41,674	174,778	76	20,297	990,956

Response of United States Postal Service Witness A. Thomas Bozzo  
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Attachment 3, Response to MPA-ANM/USPS-T12-1

Standard Errors for Data in USPS-T-12, Table 2

Cost Pool	Setup/Take Down	Runtime	Cntr Handling	Other Handling	Brk/Clock	Waiting	Other
D/BCSINC	0.0027	0.0045	0.0015	0.0022	0.0038	0.0010	0.0015
D/BCSOUT	0.0039	0.0072	0.0018	0.0035	0.0060	0.0017	0.0021
OCR/	0.0071	0.0108	0.0033	0.0060	0.0092	0.0021	0.0032
AFSM100	0.0034	0.0063	0.0019	0.0024	0.0050	0.0017	0.0019
FSM/1000	0.0047	0.0096	0.0024	0.0044	0.0078	0.0024	0.0028
SPBS OTH	0.0037	0.0073	0.0027	0.0025	0.0063	0.0018	0.0027
SPBSPRIO	0.0055	0.0121	0.0041	0.0049	0.0097	0.0024	0.0054
MANF	0.0042	0.0094	0.0043	0.0037	0.0074	0.0030	0.0036
MANL	0.0015	0.0049	0.0015	0.0024	0.0041	0.0012	0.0020
MANP	0.0084	0.0174	0.0118	0.0105	0.0145	0.0056	0.0094
PRIORITY	0.0037	0.0098	0.0055	0.0055	0.0073	0.0028	0.0047
1CANCEL	0.0030	0.0000	0.0049	0.0080	0.0064	0.0029	0.0048
LETTER SORTING	0.0015	0.0029	0.0009	0.0014	0.0025	0.0007	0.0010
FLAT SORTING	0.0024	0.0046	0.0015	0.0019	0.0036	0.0013	0.0015



Response of United States Postal Service Witness A. Thomas Bozzo  
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Attachment 4, Response to MPA-ANM/USPS-T12-1

IOCS Site ID	USPS-LR-L-56 Site ID
001015	076
010642	266
011508	283
011537	341
016537	008
017112	166
019500	280
036535	055
041412	297
042653	234
049144	107
053811	223
059505	270
061024	060
062105	181
062146	342
065115	151
065831	058
067152	358
069146	072
074152	082
074506	306
081234	038
081420	002
081541	065
083420	322
088733	231
091226	006
096020	088
096025	113
099715	247
100015	361
129824	214
131535	025
133200	289
140036	248
141117	184
144812	213
147617	211
160636	116
162840	162
168457	278
174919	216

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Magazine Publishers of America and Alliance of Nonprofit  
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Attachment 4, Response to MPA-ANM/USPS-T12-1

IOCS Site ID	USPS-LR-L-56 Site ID
175530	029
177157	115
179151	092
179807	046
192524	237
196116	147
197845	299
206531	003
207616	195
208051	031
214634	106
218611	359
221839	125
221843	134
224500	288
230630	085
232529	265
234329	345
241840	129
251504	352
252235	337
252504	353
253156	071
256456	303
256507	308
261543	102
263429	053
265120	130
265457	320
267141	119
270305	347
270808	050
277804	005
280217	185
280701	226
281427	009
281906	077
285427	336
285535	351
290116	335
290236	043
290712	212
291523	200
294114	176
296118	144

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Magazine Publishers of America and Alliance of Nonprofit  
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Attachment 4, Response to MPA-ANM/USPS-T12-1

IOCS Site ID	USPS-LR-L-56 Site ID
296146	114
296510	292
297918	262
299337	062
301113	146
301714	201
301842	165
308714	201
311405	145
318539	016
319936	140
320840	159
321528	210
332458	286
339831	090
340155	110
340611	224
346459	319
349505	300
350827	260
351504	269
360457	321
361105	182
364744	149
365457	330
372505	302
381535	011
384703	233
385506	277
397506	284
405421	032
406610	197
409610	332
411347	007
412827	217
413844	153
415746	137
417844	135
418430	287
418456	301
425533	036
440654	240
441210	133
450302	346
451156	083

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Magazine Publishers of America and Alliance of Nonprofit  
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Attachment 4, Response to MPA-ANM/USPS-T12-1

IOCS Site ID	USPS-LR-L-56 Site ID
452147	118
454142	096
456611	207
457611	193
466036	215
471033	232
475506	281
487842	293
488115	334
494506	307
495115	152
503334	039
504458	279
510723	170
511827	217
512140	084
520104	171
520113	169
522118	148
530938	143
531819	263
533059	052
533636	081
535220	028
535323	100
539626	203
539702	202
545845	180
549551	079
552338	020
556336	339
561157	074
563712	097
565914	238
570024	109
571328	080
580042	294
581115	142
581834	111
585115	331
590335	367
590542	099
590730	218
593420	030
597127	186

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To Interrogatories of Magazine Publishers of America and Alliance of Nonprofit  
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Attachment 4, Response to MPA-ANM/USPS-T12-1

IOCS Site ID	USPS-LR-L-56 Site ID
601530	001
615035	243
621149	122
621838	061
631538	010
631628	204
632626	203
635306	271
637803	004
641248	045
644500	290
646119	150
652741	163
654633	103
657126	138
659213	155
659551	093
660710	220
666745	136
668532	035
683505	285
685612	194
686647	258
688333	355
690627	252
693147	073
707113	167
710713	230
711849	189
712538	047
721020	086
721525	242
722528	255
723842	154
724842	132
725611	206
728149	123
730306	343
736714	239
739320	064
740655	199
746210	161
746744	174
749714	241
760335	019

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Attachment 4, Response to MPA-ANM/USPS-T12-1

IOCS Site ID	USPS-LR-L-56 Site ID
760831	059
763751	225
765118	156
767538	049
769506	273
770506	275
771506	348
774452	295
774920	291
776616	254
785613	196
798335	338
798530	340
799124	175
799530	022
805830	063
810534	037
812616	209
815530	017
820117	183
820628	256
822137	304
825656	249
832114	139
837320	128
841327	078
841655	199
843504	268
844834	127
845143	067
849522	344
853144	108
861632	098
865503	282
865821	245
870046	328
871046	329
871100	131
874723	172
875046	272
878616	253
879024	070
879506	276
879947	274
881134	298

Response of United States Postal Service Witness A. Thomas Bozzo  
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Attachment 4, Response to MPA-ANM/USPS-T12-1

<b>IOCS Site ID</b>	<b>USPS-LR-L-56 Site ID</b>
881308	309
886145	112
886536	024
888502	296
890335	021
891654	205
891847	141
894530	022
903539	026
904832	068
915633	069
917718	259
922523	208
927335	323
932114	333
933631	075
934047	305
937845	178
937849	190
940215	179
940541	091
942522	198
945652	228
951424	015
955622	227
958800	012
965718	261
966658	264
973506	354
973831	066
975504	313
975610	219
976925	310
987338	048
988118	187
988553	104
991211	164
996530	023

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Magazine Publishers of America and  
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**MPA-ANM/USPS-T12-2.** Please refer to the results of your application of the Commission Methodology that you report in Table D-1 on page 126 of your testimony (USPS-T-12).

a. Please provide a list of the IOCS activity codes that are defined as fixed and as variable under the Commission methodology and describe the calculation used to derive the Commission variabilities in Table D-1.

b. Please confirm that the IOCS observations used to derive the Commission-method variabilities for each cost pool in Table D-1 are the same observations described in MPA-ANM/USPS-T12-1.b above that are used to perform your IOCS activity analysis that you report on page 27, Table 2, of your testimony. If not confirmed, please explain.

Response.

- a. The IOCS activity and operation codes for tallies representing "fixed" and "migrated" tallies are shown in Attachment 1 to the response to MPA-ANM/USPS-T12-1, which is in turn based on USPS-LR-L-100, file PRCACTV.rtf. The costs represented by the IOCS tallies not represented in the PRCACTV.rtf criteria are considered 100% volume-variable. The PRC volume-variable cost fractions are computed as  $1 - (\text{'fixed' costs}) / ((\text{'total costs'}) - (\text{'migrated' costs}))$ .
- b. Confirmed. Please note that the PC-Fortran code provided in response to MPA-ANM/USPS-T12-1d produces the input data both for Table D-1 as well as for Table 2.



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USPS-T-12, To Interrogatories of Magazine Publishers of America and  
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**MPA-ANM/USPS-T12-3.** Please refer to your comparison between two updated versions of Dr. Roberts' shape-level variabilities and the shape-level averages of the USPS variabilities that you report in your testimony in Table E-6 on page 132.

a. Please provide the standard errors for the shape-level averages of the USPS variabilities.

b. Please state whether the differences between the USPS variabilities and the two corresponding versions of the Roberts variabilities are statistically significant. Provide the calculations underlying your response.

Response.

- a. The standard errors of the letter, flat, and total composite variabilities from Table E-6 are, respectively, 0.044, 0.047, and 0.035.
- b. The differences between the Postal Service BY 2005 composite variabilites and the variabilites using Prof. Roberts's methods from Table E-6 are not statistically significant at typical significance levels. The 0.14 difference between the Postal Service flat-shape composite and the FY 2005 update of Prof. Roberts's model may be considered borderline statistically insignificant (1.5 standard errors' difference assuming the variabilities are uncorrelated across models), and may be considered qualitatively significant considering the range of variabilites in dispute between the Postal Service and the Commission. The differences for the letter-shape and total letter and flat composites are both small and statistically insignificant. Please see the attached table for the underlying calculations.

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Attachment 1, Response to MPA-ANM/USPS-T12-3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FY05 Cost (\$000)	VV	SE	Variance	Cost Weight (% of shape)	C4 * C5^2	Cost Weight (% of total)	C4 * C7^2
Incoming BCS	1,090,377	0.82	0.07	0.0049	42%	0.00086	30%	0.00045
Outgoing BCS	391,639	1.06	0.06	0.0036	15%	0.00008	11%	0.00004
OCR	201,547	0.78	0.05	0.0025	8%	0.00002	6%	0.00001
AFSM 100	538,794	0.99	0.08	0.0064	54%	0.00187	15%	0.00014
FSM 1000	218,122	0.72	0.03	0.0009	22%	0.00004	6%	0.00000
Manual Flats	239,251	0.94	0.07	0.0049	24%	0.00028	7%	0.00002
Manual Letters	917,249	0.89	0.09	0.0081	35%	0.00101	26%	0.00053

	FY05 Cost (\$000)	Variance	Std. Dev	Roberts Std. Dev.	Roberts Variance	Std. Dev. Of Difference
Letters	2,600,812	0.00197	0.044	0.07	0.0049	0.083
Flats	996,167	0.00220	0.047	0.08	0.0064	0.093
Total	3,596,979	0.00120	0.035	0.05	0.0025	0.061

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**MPA-ANM/USPS-T12-4.** Please refer to the results of the activity analysis using IOCS data that you report in your testimony (USPS-T-12) on page 27, Table 2.

(a) Could this activity analysis be performed for other mail processing cost pools besides those included in Table 2?

(b) If the answer to part (b) above is affirmative, can the procedures requested in MPA-ANM/USPS-T12-1 be used to perform the analysis for other mail processing cost pools besides those reported in Table 2? In particular, can the IOCS codes that produce the five categories of activities, requested in MPA-ANM/USPS-T12-1d, be used directly to produce an analogous activity analysis for the mail processing cost pools that are not reported in Table 2?

(c) If the procedures provided in MPA-ANM/USPS-T12-1 cannot be applied directly to perform the analogous activity analysis for other mail processing cost pools, please describe what changes in the procedures would be required to allow them to be applied to those other mail processing cost pools. In particular, please provide the IOCS codes that could be used to produce the five categories of activities for the mail processing cost pools that are not reported in Table 2. In addition, please provide any necessary detail for selecting appropriate IOCS observations for these other mail processing cost pools to perform the analogous activity analysis.

(d) Please provide a table analogous to Table 2 that provides the resulting activity analysis for the other mail processing cost pools where such analysis can be performed, consistent with parts (a) through (c) of this interrogatory.

Response.

- a. In general, yes. The exception is the LD15 cost pool, which primarily represents operations at Remote Encoding Centers (RECs). RECs are not sampled in IOCS. Note also that for some cost pools, particularly in LDC 18 (and the Function 4 analogues), IOCS does not collect detailed activity information.

Response of United States Postal Service Witness A. Thomas Bozzo  
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- b. The procedures employed in the response to MPA-ANM/USPS-T12-1 can be used for some additional cost pools representing sorting operations outside of the MODS cost pools covered by my econometric analysis. Those include the BMC NMO, PSM, SPB, and SSM pools; the MODS MECPARC, 1SACKS\_M, and 1TRAYSRT pools; and the non-MODS automated and manual distribution pools. For other cost pools, particularly LDC 17 allied labor and LDC 18 cost pools (and their Function 4 equivalents), the employee's work activity used to develop the table would be recorded in different IOCS questions.
- c. The general procedure for extending the analysis is to identify the IOCS responses used to classify employees' work activities and to assign responses to the Table 2 categories. Since the activity mix is considerably different from the sorting operations, I added categories for time spent in empty equipment work (including transport equipment drivers traveling without mail) and for dock expediter work in the MODS and BMC platform cost pools. The PC-Fortran program provided in Attachment 1 provides the specific assignments of IOCS responses.
- d. Please see the table provided in Attachment 2.

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**Attachment 1, Response to MPA-ANM/USPS-T12-4**

```

program mpa_anm_4

c      Purpose:  In response to interrogatory MPA-ANM-4 part d,
providing the equivalent to Table 2 (USPS-T-12) for
c              all other mail processing cost pools

implicit none

integer*4  npool, ncat, ncon, nprc

parameter (npool=75)    ! Number of cost pools
parameter (ncat=9)      ! Number of mail processing activities
parameter (ncon = 13)   ! Number of container types
parameter (nprc = 3)    ! Number of PRC categories

include 'iocs2005.h'

integer*4  ier, ct, i, j, ldcl(npool), modgrp, actv, icat
integer*4  hand, item, icon, searchc, if260, iprc, k

real*8     rf9250, dlrs, cost(ncat,npool,nprc)
real*8     poolwgt(npool), gfy_bmc, ovh6521_bmc, ovh6522_bmc,
gfy_non, ovh6521_non, ovh6522_non

character*16 costpool(npool)
character*15 activity(ncat)/'Setup/Take Down','Runtime','Contr
Handling','Empty/Travel','Other Handling',
&      'Brk/Clock','Waiting','Other','Expediter'/
character*8  prccat(nprc)/'Fixed','Migrated','Other'/
character*1
codes(26)/'A','B','C','D','E','F','G','H','I','J','K',
&      'L','M','N','O','P','Q','R','S','T','U','V',
&      'W','X','Y','Z'/

c      Map of cost pools (USPS-LR-L-84)
open(10,file='costpools05_intl.prn') !
11  format(3x,a16,i2,f10.0,f7.2,f10.0)
do i = 1, npool
    read(10,11) costpool(i), ldcl(i)
end do
close(10)

c      Map of IOCS tally dollar weights by cost pool
open(10,file='pool_dlr_wgts05.dat') !
12  format(20x,f15.5)
do i = 1, npool
    read(10,12) poolwgt(i)
end do
close(10)
print*, 'Read in total pool tally dollar weights '

do i = 1, ncat
    do j = 1, npool
        do k = 1, nprc

```

Response of United States Postal Service Witness A. Thomas Bozzo  
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Attachment 1, Response to MPA-ANM/USPS-T12-4

```

                cost(i,j,k) = 0.0
            end do
        end do
    end do
    print*, 'Matrices initialized '

    ier = 0
    ct = 0

c    Read in BMC and Non-MODS inflation factors (USPS-LR-L-55)
    gfy_bmc = 844777./838802.    ! BMC inflation factor
    ovh6521_bmc = 752282./(752282.-121948.)    ! BMC breaks overhead
factor
    ovh6522_bmc = 838802./(838802.-33568.)    ! BMC clocking in/out
overhead factor
    gfy_non = 4976918./4629503.    ! Non-MODS inflation factor
    ovh6521_non = 4015730./(4015730.-521467.)    ! Non-MODS breaks
overhead factor
    ovh6522_non = 6474462./(6474462.-157635.)    ! Non-MODS clocking
in/out overhead factor

    open(20,file='clk_mh_mp05.dat')    ! FY05 IOCS mail processing
tallies (USPS-LR-L-84)
    21    format(a693,15x,i2,5x,i5)

    do while (ier.eq.0)

        read(20,21,iostat=ier,end=100) rec, modgrp, actv

        ct = ct + 1

        if (modgrp.ge.51) then
            modgrp = modgrp + 10
        end if

c    new position for 'INTL ISC'
        if (modgrp.eq.39) then
            modgrp = 51
        end if

        read(f260,'(i2)') if260
        read(f9250,'(f10.0)') rf9250
        dlrs = rf9250/100000.

c    Reassign function 4 tallies to Non-MODS cost pools (USPS-LR-L-
55)
        if ((modgrp.ge.44).and.(modgrp.le.47)) modgrp = 44 ! Combine
LD48 pools
        if ((modgrp.ge.40).and.(modgrp.le.44)) then
            if ((q18b.eq.'I').or.(q18b01.eq.'H')) then
                modgrp = 98    ! 2Adm
            else if ((q18b.eq.'H').or.(q18b01.eq.'G')) then
                modgrp = 95    ! Window Service
            end if
        end if
    end do

```

Response of United States Postal Service Witness A. Thomas Bozzo  
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Attachment 1, Response to MPA-ANM/USPS-T12-4

```

else if
((q18a05.eq.'C').or.(q18a07.eq.'F').or.(q18a07.eq.'H').or.(q18a07.eq.'I
')) then
    modgrp = 98      ! 2Adm
else if (q18a07.eq.'G') then
    modgrp = 95      ! Window Service
else
    if (f9806.eq.'6521') then
        modgrp = 85  ! Breaks
    else if (q18a07.eq.'A') then
        modgrp = 70  ! Express Out
    else if (q18d01.eq.'A') then
        modgrp = 69  ! Express In
    else if (q18h01.eq.'A') then
        modgrp = 69  ! Express In
    else if (q18h01.eq.'B') then
        modgrp = 75  ! Registry
    else if (q18d01.eq.'D') then
        modgrp = 72  ! Manual Letters
    else if (q18d01bc.eq.'B') then
        modgrp = 72  ! Manual Letters
    else if (q18d01.eq.'E') then
        modgrp = 71  ! Manual Flats
    else if (q18d01bc.eq.'E') then
        modgrp = 71  ! Manual Flats
    else if (q18d01.eq.'C') then
        modgrp = 73  ! Manual Parcels
    else if (q18d01.eq.'B') then
        modgrp = 73  ! Manual Parcels
    else if ((q18d01bc.ge.'A').and.(q18d01bc.le.'C')) then
        modgrp = 73  ! Manual Parcels
    else if (q18d01.eq.'F') then
        modgrp = 67  ! Allied
    else if ((q18b.ge.'A').and.(q18b.le.'B')) then
        modgrp = 67  ! Allied
    else if ((q18e04.ge.'A').and.(q18e04.le.'E')) then
        modgrp = 67  ! Allied
    else if ((q18e04bc.ge.'A').and.(q18e04bc.le.'H')) then
        modgrp = 67  ! Allied
    else if ((q18e05.ge.'A').and.(q18e05.le.'H')) then
        modgrp = 67  ! Allied
    else if (q18b01.eq.'C') then
        modgrp = 68  ! Auto
    else if (q18b.eq.'D') then
        modgrp = 68  ! Auto
    else if (q18d01bc.eq.'F') then
        modgrp = 67  ! Allied
    else
        modgrp = 74  ! Misc
    end if
end if
end if

```

c Handling category assignment

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```

      if ((actv.ge.1000).and.(actv.le.4950)) then
        hand = 1
      else if (((actv.ge.5300)
&         .and.(actv.le.5464)).and.(q20.ne.'G')) then
        hand = 1          ! direct (non-ssv)
      else if ((actv.ge.10).and.(actv.lt.1000)) then
        if (((f9805.ge.'1000').and.(f9805.le.'4950')).or.
&         ((f9805(1:2).ge.'53').and.(f9805(1:2).le.'54')))) then
        hand = 1
      else if (((actv.eq.900).or.(actv.eq.60)).and.
&         ((q20.eq.'B').or.(q20.eq.'E')).or.
&         (q21c02.eq.'A').or.(q21c02.eq.'B').or.(q21c02.eq.'E').or.
&         (q20.eq.'D')))) then
        hand = 1          ! direct (ssv handling)
      else if (q20.eq.'A') then ! revised for FY05
        hand = 1
      else if
((q20.eq.'B').or.((q20.eq.'E').and.(q21b01.ne.'H')))) then ! revised
for FY05
        hand = 2          ! item
      else if
((q20.eq.'C').or.(q20.eq.'D').or.(q20.eq.'F').or.(q21b01.eq.'H')) then
! revised for FY05
        hand = 3          ! container
      else
        hand = 4
      end if
      else if ((q20.eq.'B').or.((q20.eq.'E').and.(q21b01.ne.'H'))))
then ! revised for FY05
        hand = 2          ! mixed item
      else if
((q20.eq.'C').or.(q20.eq.'D').or.(q20.eq.'F').or.(q21b01.eq.'H')) then
! revised for FY05
        hand = 3          ! mixed container
      else
        hand = 4          ! not handling mail
      end if

      icon = 0

c    CONTAINER assignment
      searchc = 0
      do i = 1, ncon
        if (codes(i).eq.q21c01) then
          searchc = i
          exit
        end if
      end do
      icon = searchc

      if (q20.eq.'C') then ! Pallets
        if ((q21c02.eq.'A').or.(q21c02.eq.'B')) then

```



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```

            icon = 10          ! USPS WestPak or Short Pallet Box -
assign to containers
            else if ((q21c02.eq.'C').or.(q21c02.eq.'D')) then
            icon = 11          ! Postal Pak or Tall Pallet Box -
assign to containers
            else
            icon = 12          ! Other pallet
            end if
        end if

        if (q21b01.eq.'H') then
            icon= 13
        end if

        if (q20.eq.'F') then    ! Combination of handling mail - treat
as 'Other' container
            icon = 13
        end if

c      Activity assignment
        if
((q18c11.eq.'E').or.(q18c12.eq.'F').or.(q18d04.eq.'E').or.(q18d02bc.eq.
'E').or.
        &          (q18e16.eq.'G').or.(q18e18.eq.'D')) then ! Set Up/Take
Down
            icat = 1
        else if
((q18c08.eq.'Y').or.(q18c05bc.eq.'Y').or.((q18d04.ge.'B').and.(q18d04.l
e.'D')).or.
        &          ((q18d02bc.ge.'B').and.(q18d02bc.le.'D')))) then !
Machine running -incl manual dist
            icat = 2
        else if ((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A'))
then ! Handling Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
            icat = 4          ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if (((q18a05.eq.'B').or.(q18a05.eq.'C')).and.
        &          (modgrp.le.51)) then ! Breaks/Clocking In/Out (MODS
only)
            icat = 6
            if ((actv.ne.6521).and.(actv.ne.6522)) then
                print*, 'Non break/clocking actv ', actv
            end if
        else if
((q18c11.eq.'I').or.(q18c12.eq.'I').or.(q18d04.eq.'G').or.(q18d02bc.eq.
'H').or.
        &          (q18e16.eq.'H').or.(q18e18.eq.'E').or.(q18e05.eq.'H'))
then

```

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```

        icat = 7                ! Waiting for Mail or Machine Restart
    else                        ! All Other
        icat = 8
    end if

c    Cancellation runtime considered other handling
    if (modgrp.eq.18) then
        if (icat.eq.2) icat = 5
    else if ((q18e03.eq.'H').or.(q18e02.eq.'J')) then
        icat = 7                ! Waiting (collection dock)
    end if

c    Sacks Outside runtime considered other handling
    if (modgrp.eq.28) then
        if (icat.eq.2) icat = 5
    end if

c    Activity assignment for other cost pools
    if ((modgrp.eq.20).or.(modgrp.eq.21).or.(modgrp.eq.27)) then !
1Flatprep, 1Mtrprep, 1Presort
        if ((q18e18.eq.'D').or.(q18e25.eq.'D')) then
            icat = 1            ! Setting Up
        else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
            icat = 4            ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else if
((q18e18.eq.'E').or.(q18e16.eq.'H').or.(q18e05.eq.'H').or.(q18e25.eq.'F
')) then
            icat = 7            ! Waiting for Mail
        else
            icat = 8            ! Other
        end if
    else if ((modgrp.eq.22).or.(modgrp.eq.23)) then ! 1OPBulk,
1OPPret
        if ((q18e25.eq.'D').or.(q18e18.eq.'D')) then
            icat = 1            ! Setting Up
        else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then

```

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```

            icat = 4          ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
            else if (hand.ne.4) then ! Other Handling
                icat = 5
            else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
                icat = 6
            else if
((q18e25.eq.'F').or.(q18e05.eq.'H').or.(q18e17.eq.'F').or.(q18e18.eq.'E
')) then
                icat = 7          ! Waiting for Mail
            else
                icat = 8          ! Other
            end if
            else if (modgrp.eq.19) then ! 1Dspatch
                if (q18e21.eq.'B') then
                    icat = 1      ! Setting Up
                else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
                    icat = 3
                else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
                    icat = 4          ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
                else if (hand.ne.4) then ! Other Handling
                    icat = 5
                else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
                    icat = 6
                else if ((q18e21.eq.'E').or.(q18e05.eq.'H')) then
                    icat = 7          ! Waiting for Mail
                else
                    icat = 8          ! Other
                end if
                else if (modgrp.eq.26) then ! 1Pouching
                    if (q18e17.eq.'E') then
                        icat = 1      ! Setting Up
                    else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
                        icat = 3
                    else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
                        icat = 4          ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
                    else if (hand.ne.4) then ! Other Handling
                        icat = 5
                    else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
                        icat = 6
                    else if ((q18e17.eq.'F').or.(q18e05.eq.'H')) then

```

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```

            icat = 7          ! Waiting for Mail
        else
            icat = 8          ! Other
        end if
    else if (modgrp.eq.24) then ! LOPTrans
        if ((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A'))
then ! Handling Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
            icat = 4          ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else if
((q18e03.eq.'H').or.(q18e05.eq.'H').or.(q18e25.eq.'F')) then
            icat = 7          ! Waiting for Mail
        else
            icat = 8          ! Other
        end if
    else if (modgrp.eq.25) then ! IFPlatform
        if ((q18e02.eq.'C').or.(q18e02.eq.'D')) then
            icat = 1          ! Opening/Closing truck
        else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
'))
            &
            .or.(q18e05.eq.'K').or.(q18e04.eq.'H')) then
            icat = 4          ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else if
((q18e02.eq.'J').or.(q18e03.eq.'H').or.(q18e05.eq.'H').or.(q18e16.eq.'H
')) then
            icat = 7          ! Waiting for Mail
        else if (q18e01.eq.'A') then
            icat = 9          ! Dock Expediter
        else
            icat = 8          ! Other
        end if
    else if (modgrp.eq.28) then ! 1Sacks_H
        if (q18e17.eq.'E') then
            icat = 1          ! Set-up

```

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```

        else if ((q18e17.eq.'F').or.(q18e02.eq.'J')) then
            icat = 7
        end if
    else if (modgrp.eq.49) then ! BMC 79
        if ((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A'))
then ! Handling Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
            icat = 4                ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else if (q18f01.eq.'E') then
            icat = 7                ! Waiting for Mail
        else
            icat = 8                ! Other
        end if
    else if
((modgrp.eq.17).or.((modgrp.ge.26).and.(modgrp.le.48)).or.(modgrp.eq.51
)) then
        if ((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A'))
then ! Handling Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
            icat = 4                ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if ((q18a05.eq.'B').or.(q18a05.eq.'C')) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else
            icat = 8                ! Other
        end if
    else if (modgrp.eq.62) then ! BMC Other Allied
        if
((q18e18.eq.'D').or.(q18e25.eq.'D').or.(q18e21.eq.'B').or.(q18e17.eq.'E
')) then
            icat = 1                ! Setting Up
        else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
            icat = 3
        else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then

```

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```

            icat = 4                ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
        else if (hand.ne.4) then ! Other Handling
            icat = 5
        else if
(((q18a05.eq.'B').or.(q18a05.eq.'C')).and.(modgrp.ne.85)) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else if
((q18e18.eq.'E').or.(q18e25.eq.'F').or.(q18e21.eq.'E').or.(q18e17.eq.'F
').or.
&                (q18e03.eq.'H')) then
            icat = 7                ! Waiting for Mail
        else
            icat = 8                ! Other
        end if
        else if (modgrp.eq.63) then ! BMC Platform
            if ((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A'))
then ! Handling Container
                icat = 3
            else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
                icat = 4                ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
            else if (hand.ne.4) then ! Other Handling
                icat = 5
            else if
(((q18a05.eq.'B').or.(q18a05.eq.'C')).and.(modgrp.ne.85)) then !
Breaks/Clocking In/Out (MODS only)
                icat = 6
            else if ((q18e02.eq.'J').or.(q18e03.eq.'H')) then
                icat = 7                ! Waiting for Mail
            else if (q18e01.eq.'A') then
                icat = 9                ! Dock Expediter
            else
                icat = 8                ! Other
            end if
            else if (modgrp.eq.67) then ! Non-MODS Allied
                if
((q18e18.eq.'D').or.(q18e25.eq.'D').or.(q18e21.eq.'B').or.(q18e17.eq.'E
')) then
                    icat = 1                ! Setting Up
                else if
((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A')) then ! Handling
Container
                    icat = 3
                else if
((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G
')) then
                    icat = 4                ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
                else if (hand.ne.4) then ! Other Handling
                    icat = 5

```

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```

        else if
        (((q18a05.eq.'B').or.(q18a05.eq.'C')).and.(modgrp.ne.85)) then !
Breaks/Clocking In/Out (MODS only)
            icat = 6
        else if
        ((q18e18.eq.'E').or.(q18e25.eq.'E').or.(q18e21.eq.'E').or.(q18e17.eq.'F'
').or.
        &
        (q18e03.eq.'H').or.(q18e02.eq.'J').or.(q18e05.eq.'H')) then
            icat = 7                ! Waiting for Mail
        else
            icat = 8                ! Other
        end if
        else if
        ((modgrp.eq.69).or.(modgrp.eq.70).or.(modgrp.eq.74).or.(modgrp.eq.75))
then ! NMOD Express, Registry, Misc
            if ((icon.gt.0).and.(modgrp.ne.85).and.(q21e01.eq.'A'))
then ! Handling Container
                icat = 3
            else if
            ((q21e01.eq.'B').or.(q21e01.eq.'C').or.(q18e03.eq.'F').or.(q18e03.eq.'G'
')) then
                icat = 4                ! Empty Container, Empty Equipment/nh,
Traveling w/o Mail
            else if (hand.ne.4) then ! Other Handling
                icat = 5
            else if
            (((q18a05.eq.'B').or.(q18a05.eq.'C')).and.(modgrp.ne.85)) then !
Breaks/Clocking In/Out (MODS only)
                icat = 6
            else if (q18e05.eq.'H') then
                icat = 7                ! Waiting for Mail
            else
                icat = 8                ! Other
            end if
        end if

c    PRC fixed/migrated tally assignment
    if
    ((actv.eq.6320).or.(actv.eq.6330).or.(actv.eq.6430).or.(actv.eq.6460).o
r.
    &
    (actv.eq.6480).or.(actv.eq.6495).or.(actv.eq.6500).or.(actv.eq.6511).or
    &
    (actv.eq.6512).or.(actv.eq.6514).or.(actv.eq.6516).or.(actv.eq.6519).or
    &
    (actv.eq.6610).or.(actv.eq.6620).or.(actv.eq.6630).or.(actv.eq.6420).or
    &
    (actv.eq.6650).or.(actv.eq.6660).or.(actv.eq.6640).or.(actv.eq.6210).or
    &
    (actv.eq.6240).or.(actv.eq.6525).or.(actv.eq.6230)) then

```

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```

        iprc = 1                ! Fixed MP
    else if ((actv.ge.5020).and.(actv.le.5195)) then
        iprc = 2                ! Migrated
    else if ((actv.ge.6000).and.(actv.le.6200)) then
        iprc = 2                ! Migrated
    else if
((actv.eq.6521).and.((if260.eq.9).or.((if260.ge.24).and.(if260.le.26)))
) then
        iprc =2                ! Migrated
    else if
((actv.eq.6523).and.((if260.eq.9).or.((if260.ge.24).and.(if260.le.26)))
) then
        iprc =2                ! Migrated
    else if
((actv.eq.6524).and.((if260.eq.9).or.((if260.ge.24).and.(if260.le.26)))
) then
        iprc =2                ! Migrated
    else if ((actv.eq.6521).and.((if260.eq.10).or.(if260.eq.17)))
then
        iprc =2                ! Migrated
    else if ((actv.eq.6523).and.((if260.eq.10).or.(if260.eq.17)))
then
        iprc =2                ! Migrated
    else if ((actv.eq.6524).and.((if260.eq.10).or.(if260.eq.17)))
then
        iprc =2                ! Migrated
    else
        iprc = 3                ! Other
    end if

    if (icat.gt.0) then
        if (modgrp.le.npool) then

            cost(icat,modgrp,iprc) = cost(icat,modgrp,iprc) + dlrs

c      Assign breaks/clocking costs for BMCs and Non-MODS pools
        if ((modgrp.ge.61).and.(modgrp.le.66)) then ! BMCs
            cost(6,modgrp,3) =
(poolwgt(modgrp)*(ovh6521_bmc*ovh6522_bmc-1))
        else if ((modgrp.ge.67).and.(modgrp.le.npool)) then !
Non-MODS
            cost(6,modgrp,3) =
(poolwgt(modgrp)*(ovh6521_non*ovh6522_non-1))
        end if
    end if
    else
        print*, 'Cat not assigned ', icat
    end if

end do
100 print*, 'Read exit error ', ier, ' Record ct ', ct

c      Write out tallies for cost pools not included in Table 2
open(30,file='mpa-anm-4d.dat')

```



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```

31  format(i1,1x,a15,1x,i2,1x,a16,1x,i2,1x,i1,1x,a8,1x,f15.5)

      do i = 1, ncat
        do j = 1, npool
          do k = 1, nprc
            if
              (((j.le.38).and.((j.gt.6).and.(j.ne.8).and.(j.ne.9).and.(j.ne.10).and.(
j.ne.13).and.(j.ne.14).and.
              &
              (j.ne.15).and.(j.ne.16).and.(j.ne.17).and.(j.ne.18).and.(j.ne.30).and.(
j.ne.39))).or.
              &
              (((j.ge.48).and.(j.le.51)).and.(j.ne.50)).or.(j.ge.61))) then
              write(30,31) i, activity(i), j, costpool(j), ldc1(j),
k, prccat(k), cost(i,j,k)
            end if
          end do
        end do
      end do
    end

```

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Attachment 2, Response to MPA-ANM/USPS-T12-4

Pool	Setup/Take Down	Runtime	Container Handling	Empty Equipment/ Travel w/o Mail	Other Handling	Brk/Clock	Waiting	Other	Dock Expediter
MECPARC	3%	54%	2%	4%	10%	11%	5%	12%	0%
1SACKS_M	3%	30%	3%	8%	14%	21%	6%	15%	0%
1TRAYSRT	3%	38%	6%	6%	13%	23%	4%	7%	0%
1DSPATCH	10%	0%	14%	8%	28%	22%	6%	12%	0%
1FLATPRP	4%	0%	10%	4%	51%	21%	2%	7%	0%
1MTRPREP	6%	0%	15%	4%	48%	13%	5%	10%	0%
1OPBULK	5%	0%	11%	8%	39%	22%	3%	12%	0%
1OPPREF	4%	0%	16%	10%	34%	23%	3%	12%	0%
1OPTRANS	0%	0%	28%	15%	17%	20%	6%	13%	0%
1PLATFRM	0%	0%	23%	18%	8%	18%	7%	13%	13%
1POUCHNG	7%	0%	9%	6%	40%	22%	4%	12%	0%
1PRESORT	3%	0%	18%	6%	28%	23%	5%	17%	0%
1SACKS_H	6%	0%	13%	9%	29%	25%	7%	10%	0%
1SCAN	0%	0%	9%	8%	35%	21%	0%	27%	0%
BUSREPLY	0%	0%	2%	1%	53%	18%	0%	26%	0%
EXPRESS	0%	0%	4%	7%	39%	18%	0%	32%	0%
MAILGRAM	0%	0%	7%	2%	12%	22%	0%	56%	0%
REGISTRY	0%	0%	4%	4%	28%	15%	0%	50%	0%
REWRAP	0%	0%	1%	1%	45%	22%	0%	30%	0%
1EEQMT	0%	0%	2%	44%	4%	13%	0%	37%	0%
1MISC	0%	0%	5%	7%	25%	19%	0%	45%	0%
1SUPPORT	0%	0%	1%	1%	8%	10%	0%	80%	0%
LD49	0%	0%	2%	2%	62%	17%	0%	17%	0%
LD79	0%	0%	3%	1%	19%	13%	18%	46%	0%
INTL ISC	0%	0%	13%	7%	38%	20%	0%	21%	0%
NMO	2%	53%	7%	5%	4%	20%	6%	4%	0%
OTH	2%	0%	9%	7%	38%	20%	3%	22%	0%

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Magazine Publishers of America  
and Alliance of Nonprofit Mailers

Attachment 2, Response to MPA-ANM/USPS-T12-4

Pool	Setup/Take Down	Runtime	Container Handling	Empty Equipment/ Travel w/o Mail	Other Handling	Brk/Clock	Waiting	Other	Dock Expediter
PLA	0%	0%	27%	20%	8%	20%	6%	10%	11%
PSM	2%	74%	0%	0%	1%	20%	1%	2%	0%
SPB	2%	74%	1%	1%	1%	20%	1%	1%	0%
SSM	0%	73%	0%	1%	1%	20%	2%	2%	0%
N Allied	1%	0%	22%	10%	35%	15%	3%	14%	0%
N Auto	7%	59%	2%	2%	6%	15%	1%	9%	0%
N Expin	0%	0%	1%	3%	52%	15%	0%	29%	0%
N Expout	0%	0%	0%	0%	0%	15%	0%	85%	0%
N Man F	1%	72%	2%	3%	4%	15%	1%	2%	0%
N Man L	1%	70%	1%	2%	5%	15%	2%	4%	0%
N Man P	2%	64%	4%	7%	3%	15%	1%	4%	0%
N Misc	0%	0%	2%	7%	33%	15%	0%	42%	0%
N Regist	0%	0%	1%	1%	33%	15%	0%	50%	0%

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of the Office of the Consumer Advocate  
Redirected from Witness McCrery

OCA/USPS-T42-5. This interrogatory seeks information on the processing of "low aspect ratio" letter mail on mail processing equipment. Please refer to your response to GCA/USPS-T42-1, which describes a "low aspect ratio" mailpiece. Your response to GCA/USPS-T42-1(b)(i), states that "Certain facilities manually face and cancel the rejects and direct them to a MLOCR/DIOSS for automated processing."

- a. What types of facilities "manually face and cancel the rejects" for further automated processing? Please identify the types of facilities referred to, and the number of such facilities where this manual activity takes place.
- b. Please confirm that, in the facilities that "manually face and cancel the rejects," the costs of this manual activity are recorded as manual operations. If you do not confirm, please explain.
- c. Please provide the MODS operation codes and the total and unit costs associated with these manual activities.
- d. In those facilities that "manually face and cancel the rejects," what is the probability of being rejected again on a MLOCR/DIOSS?

Response.

a.-b. Answered by Witness McCrery.

c. Estimates of the total cost and unit volume-variable cost (VVC) for MOD 010

("hand cancellations") are provided in the table below. Please note that the MOD

010 cost is developed using the method used in the response to VP/USPS-T12-

12.

Line	Description	Data	Source
(1)	MOD 010 hours	1,646,343	USPS-LR-L-55, Table I-2B
(2)	1CANCEL pool hours	9,251,561	USPS-LR-L-55, Table I-2B
(3)	MOD 010 % of 1CANCEL	17.8%	L1/L2
(4)	1CANCEL cost (\$000)	307,118	USPS-LR-L-55, Table I-1
(5)	MOD 010 cost (\$000)	54,653	L3*L4
(6)	MOD 010 TPH	869,913,688	Response to TW/USPS-T11-1(b-c)
(7)	1CANCEL variability factor	0.5	USPS-T-12, Table 1
(8)	MOD 010 unit VVC (cents/TPH)	3.14	L5*L7/L6, in cents

d. Answered by Witness McCrery.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Pitney Bowes Inc.

PB/USPS-T12-1. Please confirm that the productivities in USPS-LR-L-48 and USPS-LR-L-110 do not include any hours in platform and dispatch activities. If you cannot confirm, please state specifically where platform and dispatch activities are included in the productivities in USPS-LR-L-48 and USPS-LR-L-110.

Response.

Confirmed if by "platform and dispatch activities," you mean the MODS operations assigned to the 1PLATFORM and 1DSPATCH cost pools, as defined by witness Van-Ty-Smith (see USPS-T-11 and LR-L-55, Section I).

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Pitney Bowes Inc.

PB/USPS-T12-2. Please refer to page 14 of your testimony in R2005-1 which states:

Insofar as each piece fed must be brought to and dispatched from the operation, related container handlings (including handlings to send mail back through the operation for subsequent sorting passes) will also be proportional to TPF, as will "overhead" not-handling time that is driven by the handling workhours. Handling-mail time and associated overheads account for the vast bulk of workhours in sorting operations, so there is little in the way of causal avenues for workload measures other than TPF to enter the relationship between hours and mail processing "outputs."

Is this still your opinion? If not, please explain why.

Response.

Yes, though note that the quoted passage arises in the course of a discussion of the merits of Prof. Robert's choice of first handling pieces (FHP) over total handlings (TPF and TPH) as "output" measures for sorting operations. Note that the factors of "proportionality" are quantities to be estimated, and the statement does not imply any particular degree of volume variability—100 percent or otherwise. Also, given its purpose, the previous passage does not discuss non-volume factors. In my current testimony, please see pages 26-32, and especially page 29 (line 10) to page 30 (line 12):

In addition to the work time spent sorting the mail, a portion of the time in sorting operations is spent on "quasi-allied labor" activities. I use the term to denote activities, particularly moving mail and equipment into and out of the operations, that are similar to LDC 17 allied labor operations but which are carried out by employees clocked into the sorting operation. Again, the volume "driver" is TPF (or TPH)—which counts the number of pieces taken to or from the sorting operation—though the amount of container handling also depends on the containerization profile of the mail.

As witness McCrery notes (USPS-T-42, Section III), many destinations will receive one container per processing cycle, largely independent of volume; more generally, the degree of variability of

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Pitney Bowes Inc.

container handling depends on the extent to which changes in volumes cause changes in the number of container handlings on the margin. Based on my discussions with witness McCrery, container handlings and other quasi-allied labor activities would be expected to exhibit greater volume-variability than setup and take-down time, but significantly less than 100 percent variability. In Docket No. R2000-1, it had been noted that container handling costs should exhibit "stair step" patterns reflecting the process of filling (or emptying) containers, which has little effect on container handling costs, and (occasionally) reaching points at which increments or decrements of handlings occur. Determining the degree to which the Postal Service operates on the "treads" (where costs would show low volume-variability) versus the "risers" (with locally high variability) is a matter for the econometric estimation to determine.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Pitney Bowes Inc.

PB/USPS-T12-3. Please refer to page [sic] 13-14 of your testimony in R2005-1 which states:

...increases in mailer worksharing activities will, in general, substitute for Postal Service TPF and TPH handlings, but not necessarily for FHP. Compared to an otherwise identical 3-digit presort piece, for instance, a 5-digit presort piece will avoid the incoming primary TPF and TPH, but not the incoming FHP count. The mailer's worksharing effort has reduced the needed Postal Service effort without being recognized in FHP.

Is this still your opinion? If not, please explain why.

Response.

Yes, the statement still reflects my opinions. Please see also my current testimony at page 25, lines 12-17, where I state:

[T]he FHP measure would not recognize a difference in a destination plant's sorting of a 3-digit presort piece versus a 5-digit presort piece, as FHP does not capture the sort stage(s) avoided by the 5-digit piece; TPH reflects the difference. The shortcomings of FHP are particularly significant as the substitution of mailer or presort bureau work (or "output") for Postal Service work, via the avoidance of certain sort stages, is the basis for presort cost avoidances.



Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Pitney Bowes Inc.

PB/USPS-T12-4. Please refer to pages 40 and 41 of your testimony which state:

...for allied labor and general support operations, it is possible to view cost causation as following a "piggyback" model, in which it the costs in support operations are viewed as driven by—and thus volume-variable to the same degree as—the "direct" operations.

Is this still your opinion? If not, please explain why.

Response.

I assume you are referring to pages 40-41 of my testimony from Docket No.

R2005-1. The statement is still my opinion. Please see my current testimony at page 84, lines 5-9, where the same passage appears.

RESPONSE OF POSTAL SERVICE WITNESS BOZZO (USPS-T-12)  
TO POIR NO. 8, QUESTION 6

6. The TSP output logs in USPS-LR-L-56 identify two input data files, MODS9505Q and REG9505Q. Please identify the location of these files in Postal Service submissions. If not yet submitted, please provide them.

**RESPONSE:**

MODS9505Q and REG9505Q are TSP databanks corresponding to the vv9905.xls, add9905.xls, and vvscreens.xls files provided in USPS-LR-L-56. Since TSP databanks are binary files that are not portable across computing platforms, the Microsoft Excel files were provided as a portable form of the data.

RESPONSE OF POSTAL SERVICE WITNESS BOZZO (USPS-T-12)  
TO POIR NO. 8, QUESTION 7

7. Please provide runs of the following USPS-LR-L-56 programs using the input data file named vv9905.xls that is also contained in USPS-LR-L-56 and provide the output logs:
- varmp\_tpf\_OTHAUTO\_by2005.tsp
  - varmp\_tpf\_BCSSINGLE\_by2005.tsp
  - varmp\_tpf\_AFSM\_by2005.tsp
  - varmp\_pp\_MANPARPRI\_by2005.tsp
  - varmp\_man\_LETFLT\_by2005.tsp

**RESPONSE:**

The requested material is provided in a supplement to USPS-LR-L-56.

**RESPONSE OF POSTAL SERVICE WITNESS BOZZO (USPS-T-12)  
TO POIR NO. 8, QUESTION 8**

8. Please confirm that the cost pool variability factors in the table below are the output produced by running the econometric models provided in USPS-LR-L-56 (TSP programs listed in question 2), but using different data files, namely, MODS9505Q, REG9505Q, and vv9905.xls.

Variability factors from identical TSP programs/models using different datasets (one dataset provided in USPS-LR-L-56)				
Docket No. R2006-1, T-12, LR-L-56				
Witness Bozzo				
Cost Pool	Variability factors extracted from the TSP output log (provided with LR-56 and proposed in R2006-1) using the datasets MODS9505Q and REG9505Q (not provided with LR-56)	Variability factors extracted from the same TSP program (provided with LR-56) runs using the dataset vv9905.xls (provided with LR-56)		
D/BCS*	0.88	n/a		
D/BCS Incoming	0.823191	0.723109		
D/BCS Outgoing	1.0562	1.0594		
OCR/	0.782744	0.8892		
FSM/1000	0.718714	0.849835		
AFSM100	0.99295	0.876713		
SPBS	0.866437	0.843385		
Manual flats	0.936682	0.942339		
Manual letters	0.892369	0.841883		
Manual parcels	0.797821	1.42003		
Manual Priority	0.751602	1.38123		
Cancellation	0.50476	0.535176		
*Weighted average of D/BCS Incoming and D/BCS Outgoing variabilities				
Note: Programs from columns (a) and (b) are varmp_tpf_OTHAUTO_by2005.tsp, varmp_tpf_BCSSINGLE_by2005.tsp, varmp_tpf_AFSM_by2005.tsp, varmp_pp_MANPARPRI_by2005.tsp, varmp_man LETFLT_by2005.tsp				

**RESPONSE:**

Confirmed that the left column of results is based on the USPS-LR-L-56 output files.

Not confirmed that the right column represents correct output from the vv9905.xls dataset. To provide correct results from vv9905.xls, minor modifications to the USPS-LR-L-56 programs are necessary; the modifications are described in the supplement to USPS-LR-L-56. The correct elasticities using vv9905.xls, provided in the supplement to USPS-LR-L-56 (please see also the response to Presiding Officer's Information Request No. 8, Item 7), are identical to those originally provided in USPS-LR-L-56.

RESPONSE OF POSTAL SERVICE WITNESS BOZZO (USPS-T-12)  
TO POIR NO. 8, QUESTION 9

9. The three data files, MODS9505Q, REG9505Q, and vv9905.xls, all appear to involve 368 firms for 44 time periods. Please explain how they differ.

**RESPONSE:**

The vv9905.xls file is structured with 368 sites and 28 time periods, yielding the 10,304 observations in the file. The spreadsheets provided in USPS-LR-L-56 eliminate unused time period positions prior to FY 1999 that are in the TSP databank versions of the files, but otherwise contain the same data as the TSP databanks.

RESPONSE OF POSTAL SERVICE WITNESS BOZZO (USPS-T-12)  
TO POIR NO. 8, QUESTION 10

10. Consider the following elasticity (variability factor) formula extracted from the varmp\_tpf\_OTHAUTO-by2005.tsp program in USPS-LR-L-56:

$$\begin{aligned} m00vv\_ = & (b1 + e1 + e2 + e3 + e4) + 2*(b11*Intph.00m + \\ & e11*Int\_100m + e22*Int\_200m + e33*Int\_300m + \\ & e44*Int\_400m) + b13*ttrend.00m + b14*Indpt.00m \\ & + b15*Incap.00m + b16*lnw.00m \end{aligned}$$

Please provide a complete example illustrating how to calculate an "m00vv\_" elasticity. Include all necessary parameters and mean variable values. Identify the points in the program where the means and the natural logs of the variables used to calculate the elasticity are taken.

**RESPONSE:**

The calculation for the OCR operation (group 04 in the TSP code) is provided in

Attachment 1 to this response.

In the program listing from the USPS-LR-L-56 supplement, file

varmp\_tpf\_OTHAUTO\_by2005pc.out, the FY 2005 means are taken in the commands numbered 217-219 and the natural logs of the means are computed in the commands numbered 228-235.

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Presiding Officer's Information Request No. 8

Attachment 1, Response to POIR No. 8, Item 10

Derivation of FE/GLS Output Elasticity for OCR Cost Pool

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Param- eter	Regressor	FE/GLS Estimate	FY 2005 Mean Value	Natural Log of Mean	Component of Calculation	Description
b1	CLNTPH04	2.02142000			2.021420	C3
e1	CLNT04_1	0.03208400			0.032084	C3
e2	CLNT04_2	0.36154500			0.361545	C3
e3	CLNT04_3	0.42642700			-0.426427	C3
e4	CLNT04_4	0.24780300			-0.247803	C3
b11	CLNTPH04SQ	0.03366700	26153.70959	10.171746	-0.684904	2*C3*C5
e11	CLNT04_1S	0.00175669	27032.31599	10.204788	0.035853	2*C3*C5
e22	CLNT04_2S	0.01420100	27794.97843	10.232611	-0.290627	2*C3*C5
e33	CLNT04_3S	0.02564200	28438.47577	10.255498	0.525943	2*C3*C5
e44	CLNT04_4S	0.01788300	29114.34162	10.278986	0.367638	2*C3*C5
b13	CLNTPH_TTREND04	0.00294773	26.50047	n/a	-0.078116	C3*C4
b14	CLNT_D04	0.08087700	469271.0952	13.058936	-1.056168	C3*C5
b15	CLNTPH_LNCAP04	0.01770800	275929.7673	12.527902	0.221844	C3*C5
b16	CLNTPH_LNW04	0.06282600	1.00755	0.007522	0.000473	C3*C5
OCR Elasticity					0.782755	Sum of above lines

0.782744 Result reported in USPS-LR-L-56 Supp  
(Difference due to rounding of  
0.000011 coefficients in printed output log)

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Time Warner, Inc.

TW/USPS-T12-1 Please refer to the tables provided as attachments to your response to TW/USPS-T11-1bc.

- a. Please identify the MODS operations where volumes shown represent *something other than counts of individual mail pieces* (e.g., if they refer to counts of sacks or trays rather than of the pieces that are in the sacks or trays). Please state in each case what the volume measures *mean*.
- b. For each MODS operation identified in part a above, please describe how the volume measures shown in your tables are obtained.

Response.

a.-b. In general, all operations other than those that handle individual pieces of mail will have workloads that consist of handling articles such as bundles, sacks, trays, or other containers. The affected operations are those assigned to the LDC 13 and LDC 17 cost pools. For mechanized operations, the volume measures are machine counts of the *articles processed on the machines* (e.g., pieces or bundles in SPBS operations, trays in tray sorting operations). For other "indirect" distribution operations, the workloads are generally counts of the sacks, trays, etc., processed in the operations; my understanding is that, except as noted below, workload reporting for manual "indirect" operations is optional. See also my response in Docket No. R2005-1 to TW/USPS-T12-1.

Opening Units (operations 110-117, 180-186, 343-344): The workload is the FHP count for mail weighed from the opening units to "direct" distribution operations.



Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Time Warner, Inc.

Flat Mail Preparation (operation 035): The workload is the FHP count for mail weighed from 035 to direct distribution operations.

Platform (operations 210-213, 351): The workload is the inbound or outbound trip, recorded in WebTIMES.

Response of United States Postal Service Witness A. Thomas Bozzo,  
USPS-T-12, To Interrogatories of Time Warner, Inc.

TW/USPS-T12-2 Please describe the various ways (e.g. weighing, measuring of lineal feet, etc.) in which estimates of first handling pieces (FHP) to flats sorting operations are measured in today's post offices. Please describe also the approximate frequency of each method, and the factors used to convert measures taken into estimates of numbers of flats. Please state also whether different conversion factors are used for different categories of flats (e.g., magazines, newspapers, sealed envelopes, etc.)

Response.

My understanding is that flat sorting FHP are computed by weighing the mail and converting the weight to pieces using national conversion rates. See Handbook M-32 (April 2000), section 2-1.1.1.4, provided in the response to TW/USPS-2. The conversion factors vary for different types of mail; see Handbook M-32 (April 2000), section 2-2.2.1 for a list of the source/type codes.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

TW/USPS-T11-1 Please refer to Table I-2B in LR-L-55, which shows MODS hours (excluding BMC, ISC hours) for each MODS number, with MODS numbers arranged according to LDC grouping.

- a. Please confirm that the table contains all MODS numbers used for mail processing activities. If not confirmed, what other numbers are used and what do they represent?
- b. For all MODS numbers where MODS measures volumes, please provide the first handling pieces, total pieces handled and total pieces fed, corresponding to the MODS hours shown in Table I-2B. Please provide this information in a spreadsheet format compatible with the format used for Table I-2B.
- c. Please provide, in a spreadsheet format, a list of all MODS numbers used in BMC's during FY2005, along with BMC MODS hours recorded in FY2005 and, where applicable, the corresponding measures of first handling pieces, total pieces handled and total pieces fed.

Response.

- a. Answered by witness Van-Ty-Smith.
- b. Please see the table provided as Attachment 1 to this response. The table will also be provided in Microsoft Excel spreadsheet format.
- c. Please see the table provided as Attachment 2 to this response. The table will also be provided in Microsoft Excel spreadsheet format.

Attachment 1, Response of United States Postal Service Witness A. Thomas Bozzo

To Interrogatory of Time Warner, Inc.

Redirected from Witness Van-Ty-Smith

Attachment 1, Response to TW/USPS-T11-1(b)  
 BY 2005 MODS Hours and Workloads by Operation  
 for Function 1, LDC 49 & LDC=79  
 Exclude BMC, ISC Hours  
 Source : MODS file, BY 05

MOD	NAME	MODHRS	TPH	TPF	FHP
----- Ldc=11 pool=D/BCS INC					
251	MAIL CARTRIDGE SYS	10	0	0	0
264	DBCS/DIOSS OCR INCOMING SCF PRIMARY	4,625	61,909,900	63,094,259	2,660,761
265	DBCS/DIOSS OCR INCOMING PRIMARY	519	3,567,668	3,577,160	2,705,849
266	DBCS/DIOSS OCR INCOMING SECONDARY	4,942	61,047,997	61,788,794	1,855,106
267	DBCS/DIOSS OCR BOX SECTION	198	2,294,767	2,301,472	50,422
273	DBCS/DIOSS OSS MANAGED MAIL	61,983	309,553,289	377,414,228	41,751,493
274	DBCS/DIOSS OSS INCOMING SCF PRIMARY	31,673	437,476,626	478,802,750	164,484,062
275	DBCS/DIOSS OSS INCOMING PRIMARY	11,171	94,206,363	103,498,575	24,866,974
276	DBCS/DIOSS OSS INCOMING SECONDARY	5,738	58,512,100	61,297,870	14,100,269
277	DBCS/DIOSS OSS BOX SECTION	39	12,621	25,161	10,581
278	DBCS/DIOSS OSS SEC/SEGMENT 1ST PASS	10	1,061,887	1,099,854	7,261
279	DBCS/DIOSS OSS SEC/SEGMENT 2ND PASS	14	0	0	1,850
284	DBCS/DIOSS ISS INCOMING SCF PRIMARY	11,959	99,438,852	106,690,335	93,184,166
285	DBCS/DIOSS ISS INCOMING PRIMARY	3,143	13,219,758	14,952,868	2,813,301
286	DBCS/DIOSS ISS INCOMING SECONDARY	2,333	1,050,734	1,075,225	513
287	DBCS/DIOSS ISS BOX SECTION	890	814,625	1,205,521	10,078
297	DIOSS EC/DBCS BULKY MODE - BOX SEC	50	298	299	0
484	DBCS-EC EC MODE-INCOMING SCF PRIMAR	14,725	35,699,358	39,235,769	8,429,461
485	DBCS-EC EC MODE-INCOMING PRIMARY	679	1,281,703	1,468,515	46,669
486	DBCS-EC EC MODE-INCOMING SECONDARY	175	18,737,864	21,328,353	-5,063

Attachment 1, Response of United S      Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
487	DBCS-EC EC MODE-BOX SECTION	1	0	0	0
505	DIOSS EC-OSS BULKY MODE - I/C PRIMA	4,264	0	0	0
506	DIOSS EC-OSS BULKY MODE - I/C SECND	579	0	0	0
854	MPBCS CHUNKY MOD-INCOMING SCF PRIM	1,764	14,972,479	19,050,066	35,104
855	MPBCS CHUNKY MOD-INCOMING PRIMARY	13	233,011	262,272	27,291
856	MPBCS CHUNKY MOD-INCOMING SECONDARY	7	12,200	13,196	18,007
864	BCS ON OCR-INCOMING SCF	37,559	259,396,052	283,948,210	109,074,629
865	BCS ON OCR-INCOMING PRIMARY	42,117	383,351,515	409,530,340	122,566,766
866	BCS ON OCR-INCOMING SECONDARY	94,870	612,519,788	647,058,221	43,279,917
867	BCS ON OCR-BOX SECTION	748	22,066,583	23,109,183	184,566
868	BCS ON OCR-SECTOR/SEGMENT 1ST PASS	9	414,812	429,877	0
869	BCS ON OCR-SECTOR/SEGMENT 2ND PASS	212	368,451	371,396	4,002
874	MPBCS-INCOMING SCF	1,185,290	7,651,487,957	7,908,889,639	8,096,330,522
875	MPBCS-INCOMING PRIMARY	350,365	2,614,428,225	2,703,187,071	2,450,577,334
876	MPBCS-INCOMING SECONDARY	728,750	4,534,730,624	4,684,331,112	1,493,611,320
877	MPBCS-BOX SECTION	43,131	428,171,234	436,345,310	27,367,963
878	MPBCS-SECTOR/SEGMENT 1ST PASS	43,180	464,279,746	473,415,407	97,491,662
879	MPBCS-SECTOR/SEGMENT 2ND PASS	19,077	344,128,037	347,040,450	602,998
894	DBCS/DIOSS BCS INCOMING SCF PRIM	3,700,919	24,441,187,059	24,808,685,074	23,543,250,156
895	DBCS/DIOSS BCS INCOMING PRIMARY	1,490,135	10,816,243,129	10,980,133,706	10,292,457,975
896	DBCS/DIOSS BCS I/C SECONDARY	1,977,502	13,826,332,378	14,052,873,978	6,994,059,218
897	DBCS/DIOSS BCS BOX SECTION	268,571	3,332,742,407	3,364,950,182	576,348,750
898	DBCS/DIOSS BCS SECT/SEGM 1ST PASS	164,717	1,386,264,197	1,397,299,274	432,218,266
899	DBCS/DIOSS BCS SECT/SEGM 2ND PASS	54,975	750,488,717	753,637,482	1,554,170
908	CSBCS-SECTOR/SEGMENT	625	2,535,324	2,599,408	4,580
909	CSBCS-INCOMING SECONDARY	299	5,199,327	5,554,245	1,403,113
910	CSBCS-BOX MAIL	40	388,031	441,593	130,322
911	CSBCS-DELIVERY POINT SEQUENCE (DPS)	9,238	238,533,270	241,336,245	660,828
914	MPBCS-DELIV POINT SEQ 1ST PASS	48,652	402,188,347	410,889,986	57,701,191

Attachment 1, Response of United S. Postal Service Witness A. Thomas Bozzo  
 To Interrogatory of Time Warner, Inc.  
 Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
915	MPBCS-DELIV POINT SEQ 2ND PASS	19.039	295.949.067	300.308.925	181.214
916	BCS-OSS-DELIV POINT SEQ 1ST PASS	796	19.549.579	19.879.314	780.441
917	BCS-OSS DELIV POINT SEQ 2ND PASS	817	19.319.858	19.628.206	996.427
918	DBCS/DIOSS BCS DPS. 1ST PASS	15.518.844	95.827.877.022	96.588.905.033	38.984.498.432
919	DBCS/DIOSS BCS DPS. 2ND PASS	4.477.497	86.627.903.126	87.292.400.158	1.822.637
925	DBCS/DIOSS-OSS-DELIV P SEQ 1ST PASS	19.116	31.017.511	31.410.209	0
926	DBCS/DIOSS-OSS-DELIV P SEQ 2ND PASS	2.181	29.719.430	29.929.390	0
974	BCS-OSS-INCOMING SCF	48.440	370.394.289	408.436.882	231.293.742
975	BCS-OSS-INCOMING PRIMARY	24.309	175.350.047	189.452.321	196.883.027
976	BCS-OSS-INCOMING SECONDARY	23.162	212.161.600	220.705.267	84.470.162
977	BCS-OSS-BOX SECTION	617	2.445.780	2.601.562	82.657
978	BCS-OSS SECTOR/SEGMENT 1ST PASS	289	0	0	86.482
979	BCS-OSS SECTOR/SEGMENT 2ND PASS	24	0	0	0
-----					
		30 557 642	257 344 236 619	260 397 897 198	94.199.029.624
----- Idc=11 pool=D/BCSOUT					
047	OSS - RETURN TO SENDER	65.812	677.951.763	876.132.349	5.493.985
091	CIOSS TRS IMAGE LIFT MODE	60.631	102.101.256	404.555.143	333.636.971
092	CIOSS TERNATIONAL OUTBOUND	36.541	233.539.673	275.187.146	2.078.445
093	CIOSS FORWARD IMAGE LIFT MODE	69.305	143.233.517	479.714.116	360.692.697
094	CIOSS REVERSE SIDE SCAN	8.614	13.008.716	44.466.506	0
095	CIOSS RESCAN	3.366	2.881.077	16.602.809	0
096	CIOSS OTHER MODE	6.736	10.211.354	43.609.581	0
097	CIOSS INTRCEPT IMAGE LIFT MODE	38.765	42.205.998	249.177.218	33.112.773
098	CIOSS FWDS LABEL MODE	66.544	395.543.091	472.565.965	0
099	CIOSS RTS LABEL MODE	74.126	331.858.955	451.076.020	0
261	DBCS/DIOSS OCR O/G PRIMARY	65.111	300.590.320	315.682.335	154.091.390
262	DBCS/DIOSS OCR O/G SECONDARY	202	16.847.703	16.888.738	0
263	DBCS/DIOSS OCR MANAGED MAIL	5.008	32.551.013	33.042.701	30.669.350

Attachment 1, Response of United S      Postal Service Witness A. Thomas Bozzo  
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MOD	NAME	MODHRS	TPH	TPF	FHP
271	DBCS/DIOSS OSS OUTGOING PRIMARY	2,101.863	18,203,313.212	20,462,936.238	13,480,840.360
272	DBCS/DIOSS OSS OUTGOING SECONDARY	45.936	502,781.264	560,973.338	125,935.792
281	DBCS/DIOSS ISS OUTGOING PRIMARY	425.497	3,002,164.221	3,368,929.660	2,249,694.981
282	DBCS/DIOSS ISS OUTGOING SECONDARY	229	28,011.933	29,092.266	272.181
283	DBCS/DIOSS ISS MANAGED MAIL	17.081	80,313.369	99,610.647	31,420.088
291	DIOSS EC/DBCS BULKY MODE - O/G PRIM	10	71.446	83.157	12.747
292	DIOSS EC/DBCS BULKY MODE - O/G SEC	4	0	0	0
309	DBCS/DIOSS OCR-INTL-NAT EXPORT PRIM	94	0	0	0
311	MPBCS/OSS-INTERNATIONAL EXPORT	4	0	0	0
312	MPBCS-INTERNATIONAL EXPORT	3	0	0	0
313	DBCS/DIOSS-OSS INTL EXPORT PRIMARY	0	41.965	42.486	0
314	DBCS/DIOSS-BCS INTL EXPORT PRIMARY	961	14,551.243	14,916.531	16,690.203
317	DBCS/DIOSS OSS INTL IMPORT PRIMARY	106	1,526.947	1,615.687	0
318	DBCS/DIOSS BCS INTL IMPORT PRIMARY	0	0	0	0
356	DBCS/DIOSS ISS INTL EXPORT PRIMARY	1,814	8,586	60,556	71,686
357	DBCS/DIOSS ISS INTL IMPORT PRIMARY	1,955	5,971.511	8,272.321	15,133.909
481	DBCS-EC EC MODE-OUTGOING PRIMARY	19,476	83,911.036	95,729.521	1,392.163
482	DBCS-EC EC MODE-OUTGOING SECONDARY	254	4,184.779	4,751.005	40.999
483	DBCS-EC EC MODE-MANAGED MAIL	5,417	19,645.514	21,778.388	25,066.116
491	DIOSS EC-ISS BULKY MODE - O/G PRIMA	177	0	0	0
603	MAILER VALIDATION-CREDITS FHP.TPH	544	0	0	0
604	MAILER VALIDATION-NO VOLUME CREDIT	31,917	465	465	0
851	MPBCS CHUNKY MOD-OUTGOING PRIMARY	5,332	10,636.941	12,473.447	50.922
852	MPBCS CHUNKY MOD-OUTGOING SECONDARY	363	360.282	403.700	0
853	MPBCS CHUNKY MOD-MANAGED MAIL	15	584	745	0
861	BCS ON OCR-OUTGOING PRIMARY	579	2,576.902	3,844.699	81,377
862	BCS ON OCR-OUTGOING SECONDARY	1,818	19,977.881	22,523.501	15,445
863	BCS ON OCR-MANAGED MAIL	10,767	67,158.927	74,181.882	3,999.875
871	MPBCS-OUTGOING PRIMARY	45,178	208,681.367	218,521.970	310,659.306

Attachment 1, Response of United S Postal Service Witness A. Thomas Bozzo  
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MOD	NAME	MODHRS	TPH	TPF	FHP
872	MPBCS-OUTGOING SECONDARY	117.934	862,771,459	882,833,757	371,081,575
873	MPBCS-MANAGED MAIL	526,475	3,536,373,342	3,660,882,712	3,611,803,910
891	DBCS/DIOSS BCS OUTGOING PRIMARY	1,639,380	13,367,241,382	13,797,212,927	12,415,975,133
892	DBCS/DIOSS BCS OUTGOING SECONDARY	935,264	8,349,413,404	8,502,298,657	2,427,392,694
893	DBCS/DIOSS BCS MANAGED MAIL	4,204,314	27,692,335,489	28,126,094,219	27,464,925,342
971	BCS-OSS-OUTGOING PRIMARY	267,197	2,094,806,616	2,386,006,611	1,151,639,796
972	BCS-OSS-OUTGOING SECONDARY	23,479	82,509,867	90,091,637	29,708,262
973	BCS-OSS-MANAGED MAIL	43,416	230,659,845	273,631,719	138,051,246
		-----			
		10,975,615	80,774,526,215	86,398,495,076	64,791,731,719
	----- ldc=11 pool=OCR/				
046	ISS - RETURN TO SENDER	208,877	408,750,551	1,454,675,536	894,505,114
301	MLOCR-ISS-INTERNATIONAL EXPORT	8,391	0	0	0
302	MLOCR-INTERNATIONAL EXPORT	3	0	0	0
303	MLOCR-ISS-INTERNATIONAL IMPORT	339	24,331,078	33,004,092	32,211,453
304	MLOCR-INTERNATIONAL IMPORT	1	0	0	0
831	MLOCR OUTGOING PRIMARY	50,102	304,824,516	386,575,460	63,404,012
832	MLOCR-OUTGOING SECONDARY	9,326	113,025,453	136,904,694	804,613
833	MLOCR-MANAGED MAIL	57,758	163,710,621	196,808,348	49,495,828
834	MLOCR-INCOMING SCF	253,550	1,565,849,711	1,723,458,381	641,977,634
835	MLOCR-INCOMING PRIMARY	134,621	736,150,197	828,791,728	149,184,078
836	MLOCR-INCOMING SECONDARY	222,978	1,440,349,393	1,568,645,058	13,129,836
837	MLOCR-BOX SECTION	3,651	76,553,793	82,813,010	800,393
841	MLOCR CHUNKY MOD - OUTGOING PRIMARY	226,723	1,086,416,103	1,368,960,065	471,799,368
842	MLOCR CHUNKY MOD-OUTGOING SECONDARY	43,281	268,373,013	317,514,765	23,310,409
843	MLOCR CHUNKY MOD - MANAGED MAIL	116,022	400,312,655	504,131,855	169,665,052
844	MLOCR CHUNKY MOD - INC. SCF PRIMARY	175,861	933,616,831	1,084,728,178	478,445,144
845	MLOCR CHUNKY MOD - INCOMING PRIMARY	74,466	242,531,281	294,925,450	89,108,158
846	MLOCR CHUNKY MOD - INC. SECONDARY	470,331	377,537,872	424,835,907	24,142,622



Attachment 1, Response of United S. Postal Service Witness A. Thomas Bozzo  
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MOD	NAME	MODHRS	TPH	TPF	FHP
847	MLOCR CHUNKY MOD - BOX SECTION	492	8,984,414	12,307,828	424,290
881	MLOCR-ISS-OUTGOING PRIMARY	2,296,871	12,837,518,018	14,336,637,208	14,684,534,412
882	MLOCR-ISS-OUTGOING SECONDARY	5,900	30,531,607	37,480,821	25,833,672
883	MLOCR-ISS-MANAGED MAIL	620,293	1,797,333,876	2,171,091,482	1,526,429,740
884	MLOCR-ISS-INCOMING SCF	455,747	2,239,217,603	2,434,265,474	1,148,405,406
885	MLOCR-ISS-INCOMING PRIMARY	203,240	773,586,965	861,028,704	398,320,221
886	MLOCR-ISS-INCOMING SECONDARY	2,837	19,356,526	21,406,898	3,854,621
887	MLOCR-ISS-BOX SECTION	6,648	3,100	4,864	337,392
961	DIOSS BULKY OCR MODE - O/G PRI	4	0	0	0

5,648,313	25,848,865,177	30,280,995,806	20,890,123,468
47,181,570	363,967,628,011	377,077,388,080	179,880,884,811

----- Idc=12 pool=AFSM100

194	AFSM100-INTERNATIONAL EXPORT	1,417	0	0	0
195	AFSM100-INTERNATIONAL IMPORT	135	421,439	464,986	248,173
331	AFSM100 OUTGOING PRIMARY	1,889,945	3,842,841,303	4,080,486,171	3,372,298,845
332	AFSM100 OUTGOING SECONDARY	179,414	450,221,333	480,242,290	91,493,290
333	AFSM100 MANAGED MAIL	1,906,665	4,088,400,708	4,330,244,228	3,536,842,513
334	AFSM100 INCOMING SCF	2,071,716	4,292,180,158	4,522,772,572	3,966,014,941
335	AFSM100 INCOMING PRIMARY	516,775	1,035,215,730	1,093,662,564	1,104,353,377
336	AFSM100 INCOMING SECONDARY	7,619,200	15,212,455,613	16,063,533,448	10,643,250,776
337	AFSM100 - BOX SECTION	26,775	67,680,261	73,861,407	8,151,796
338	AFSM100 - INCOMING NON-SCHEME	15,302	0	0	5,294
401	AFSM 100 - ATHS - O/G PRI	4,987	9,915,546	10,831,506	6,583,887
402	AFSM 100 - ATHS - O/G SEC	650	955,479	1,142,359	4,043
403	AFSM 100 - ATHS - MAN MAIL	9,164	20,283,606	22,484,017	10,782,527
404	AFSM 100 - ATHS - I/C SCF	7,202	17,074,520	18,411,931	13,427,574
405	AFSM 100 - ATHS - I/C PRI	3,638	465,076	494,087	6,021,636
406	AFSM 100 - ATHS - I/C SEC	21,298	44,209,919	47,152,888	22,192,330

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MOD	NAME	MODHRS	TPH	TPF	FHP
407	AFSM 100 - ATHS - BOX SECTION	25	64,356	72,421	287,060
		-----			
		14,274,306	29,082,385,047	30,745,856,875	22,781,958,062
-----	Idc=12 pool=FSM/1000				
192	FSM-INTERNATIONAL EXPORT	11	0	0	0
193	FSM-INTERNATIONAL IMPORT	40	0	0	0
196	USFM 1000 OCR-EXPORT	5	0	0	0
197	USFM 1000 OCR-IMPORT	595	0	0	0
305	FSM 1000-INTERNATIONAL EXPORT PRIM.	1,550	857,987	870,733	1,160,227
306	FSM 1000-INTERNATIONAL IMPORT PRIM.	6	67,895	74,388	10,118,367
307	FSM 1000BCR-INTERNATL EXPORT PRIM.	7	0	0	0
308	FSM 1000BCR-INTERNATL IMPORT PRIM.	26	0	0	0
441	FSM 1000, OUTGOING PRIMARY	1,189,602	518,675,662	532,525,840	268,037,691
442	FSM 1000, OUTGOING SECONDARY	178,311	96,420,381	99,517,379	9,915,991
443	FSM 1000, MANAGED MAIL	1,134,912	428,514,334	439,839,733	285,481,456
444	FSM 1000, SCF	1,197,001	557,268,367	574,057,811	288,618,787
445	FSM 1000, INCOMING PRIMARY	362,455	165,047,655	169,445,983	79,273,988
446	FSM 1000, INCOMING SECONDARY	122,262	59,094,186	60,708,366	29,684,867
447	FSM 1000, BOX SECTION	19,497	11,514,387	11,996,153	4,584,350
448	FSM 1000, INCOMING NON-SCHEME	72,232	455,479	550,588	161,502
450	FSM 1000, PRIORITY OUTGOING	97,551	23,522,396	24,136,451	20,410,781
451	FSM 1000, PRIORITY INCOMING	47,750	20,253,994	20,650,826	19,056,573
461	FSM1000BCR-OUTGOING PRIMARY	1,226	371,307	404,777	190,133
462	FSM1000BCR-OUTGOING SECONDARY	87	9	111	0
463	FSM1000BCR-MANAGED MAIL	30	293,999	335,804	1,614
464	FSM1000BCR-INCOMING SCF	1,249	353,711	386,138	2,126,437
465	FSM1000BCR-INCOMING PRIMARY	1,664	969,884	1,193,770	13,736
466	FSM1000BCR-INCOMING SECONDARY	526	410,243	478,867	343,460
467	FSM1000BCR-BOX MAIL	42	3,043	3,680	14,980

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MOD	NAME	MODHRS	TPH	TPF	FHP
468	FSM1000BCR-INCOMING NONSCHEME	9.399	0	0	0
811	UFSM 1000 OCR - OUTGOING PRIMARY	130.457	175,946.295	213,810.848	130,260.661
812	UFSM 1000 OCR - OUTGOING SECONDARY	33.027	53,164.593	64,192.090	33,855.732
813	UFSM 1000 OCR - MANAGED MAIL	125.990	193,820.469	221,086.448	108,088.476
814	UFSM 1000 OCR INCOMING SCF	410.635	510,667.034	564,866.316	520,320.731
815	UFSM 1000 OCR INCOMING PRIMARY	50.305	54,302.346	63,159.767	54,564.149
816	UFSM 1000 OCR INCOMING SECONDARY	582.469	906,636.572	984,343.726	693,419.739
817	UFSM 1000 OCR BOX SECTION	5.156	11,188.398	13,433.717	3,114.270
818	UFSM 1000 OCR - PRIORITY OUTGOING	2.439	2,790.392	3,220.166	2,237.410
819	UFSM 1000 OCR - PRIORITY INCOMING	217	151.429	189.788	219.201
		-----			
		5,778.729	3,792,762.447	4,065,480.264	2,565,275.309
		20,053.035	32,875,147.494	34,811,337.139	25,347,233.371
----- ldc=13 pool=MECPARC					
105	MECHANIZED PARCEL SORTER	143.495	13,121.752	13,476.226	19,550.129
107	PARCELSORTER-INTERNATIONAL EXPORT	11	0	0	0
108	PARCELSORTER-INTERNATIONAL IMPORT	86	0	0	0
		-----			
		143.591	13,121.752	13,476.226	19,550.129
----- ldc=13 pool=SPBS OTH					
056	GPL-INTERNATL EXPRESS IMPORT SPBS	2.974	0	0	0
058	GPL-INTERNATL ECONOMY IMPORT SPBS	4	0	0	0
134	SPBS OUTGOING PREF	1,541.165	582,294.439	590,411.565	0
135	SPBS OUTGOING STANDARD	353.906	79,941.067	81,971.632	0
136	SPBS INCOMING PREF	4,164.947	1,015,582.548	1,029,609.113	0
137	SPBS INCOMING STD	4,644.716	1,202,465.212	1,218,968.816	0
152	APPS SINGLE INDUCTION - O/G PCLPOST	2	0	0	0
153	APPS SINGLE INDUCTION - I/G PCLPOST	7	0	0	0
154	APPS SINGLE INDUCTION - O/G PREF	11.659	11,157.279	12,512.320	0

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MOD	NAME	MODHRS	TPH	TPF	FHP
155	APPS SINGLE INDUCTION - O/G STD	34	9,951	13,637	0
156	APPS SINGLE INDUCTION - I/C PREF	40,549	27,161,054	33,042,569	0
157	APPS SINGLE INDUCTION - I/C STD	51,460	20,253,056	25,105,139	0
242	APPS DUAL INDUCTION - O/G PCLPOST	39	0	0	0
243	APPS DUAL INDUCTION - O/G PCLPOST	9	0	0	0
244	APPS DUAL OUTGOING PREF	9,215	4,601,578	5,160,325	0
245	APPS DUAL OUTGOING STD	59,776	14,990,967	19,231,606	0
246	APPS DUAL INCOMING PREF	48,340	16,353,723	20,153,198	0
247	MAIL DUAL INCOMING STD	116,218	56,215,144	69,326,884	0
254	LIPS OUTGOING PREF	27,441	12,881,741	12,881,864	0
255	LIPS OUTGOING STANDARD	26,315	6,503,929	6,503,929	0
256	LIPS INCOMING PREF	250,141	56,131,646	56,373,951	0
257	LIPS INCOMING STANDARD	335,489	108,903,926	109,067,442	0
346	SPBS INTERNATIONAL EXPORT	440	0	0	0
347	SPBS INTERNATIONAL IMPORT	3	0	0	0
434	SPBS-BCR OUTGOING PREF	22,389	10,682,112	10,864,085	0
435	SPBS-BCR OUTGOING STANDARD	3	0	0	0
		-----			
		11,707,242	3,226,129,372	3,301,198,075	0
-----	Idc=13 pool=SPBSPRIO				
104	GLOBAL PRIORITY MAIL-EXPORT	1,862	187,801	206,221	0
106	GLOBAL PRIORITY MAIL-IMPORT	3,404	0	0	0
138	SPBS-PRIORITY, OUTGOING	1,133,863	356,423,653	362,628,728	314,120,827
139	SPBS-PRIORITY, INCOMING	1,312,742	453,242,322	458,642,142	438,070,917
158	APPS SINGLE INDUCTION-PRIORITY O/G	7,957	3,189,888	3,583,475	1,548,265
159	APPS SINGLE INDUCTION-PRIORITY I/C	33,823	15,058,401	17,025,333	4,809,512
248	MAIL DUAL PRIORITY - OUTGOING	192,583	60,887,367	68,759,820	58,999,776
249	MAIL DUAL PRIORITY - INCOMING	124,216	64,711,602	72,786,277	61,139,643
258	LIPS/RAPISTAN - PRIORITY, OUTGOING	627,646	95,171,767	95,815,306	90,939,506

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MOD	NAME	MODHRS	TPH	TPF	FHP
259	LIPS/RAPISTAN - PRIORITY, INGOMING	711,110	119,260.358	119,983,125	106,820,030
438	SPBS-BCR-PRIORITY, OUTGOING	8,740	2,068.852	2,279,053	2,219,805
439	SPBS-BCR-PRIORITY, INCOMING	416	0	0	19,021
		-----			
		4,158,363	1,170,202.011	1,201,709,480	1,078,687,302
----- ldc=13 pool=1SACKS_M					
238	MECHANIZED SORT-SACK/OUTSIDES	473,858	69,072.996	69,076,914	0
239	MECHANIZED SORT-SACK/OUTSIDES	230,140	26,944.746	26,944,746	0
349	MECH SACK SORT-INTERNATIONAL	11	0	0	0
		-----			
		704,009	96,017.742	96,021,660	0
----- ldc=13 pool=1TRAYSRT					
618	LOW COST TRAY SORTER - OUTGOING	1,516,535	175,630.457	176,034,789	0
619	LOW COST TRAY SORTER - INCOMING	2,458,986	263,835.444	263,955,201	0
627	ROBOTICS - PEDESTAL	16,122	4,736.137	4,748,290	0
628	ROBOTICS - GANTRY OUTGOING	196,940	37,540.380	37,575,690	0
629	ROBOTICS - GANTRY INCOMING	373,827	40,636.511	40,680,220	0
		-----			
		4,562,410	522,378.929	522,994,190	0
		21,275,614	5,014,728.054	5,121,923,405	1,078,687,302
----- ldc=14 pool=MANF					
060	MANUAL FLT-OUTGOING PRIMARY	612,349	283,314.288	0	217,244,966
062	MANUAL FLT-INTERNATIONAL EXPORT	28,915	2,781.600	0	2,140,013
063	MANUAL FLT-INTERNATIONAL IMPORT	33	0	0	0
069	RIFFLE FLAT MAIL	49,284	14,908.882	0	11,125,271
070	MANUAL FLT-OUTGOING SECONDARY	191,949	72,340.497	0	21,802,673
073	MANUAL FLT-STATE DISTRIBUTION	407,291	160,890.771	0	123,810,983
074	MANUAL FLT-SCF DISTRIBUTION	1,614,276	726,603.376	0	569,433,656
075	MANUAL FLT-BULK BUSINESS	57,040	26,896.492	0	22,182,177

Attachment 1, Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
170	MANUAL FLT-INCOMING PRIMARY	815,921	302,575,674	0	219,547,336
175	MANUAL FLT-INCOMING SECONDARY	2,618,647	1,132,088,010	0	442,531,154
178	MANUAL FLT-PRIMARY BOX	346,999	157,045,496	0	66,761,890
179	MANUAL FLT-SECONDARY BOX	110,617	76,422,874	0	17,050,419
		-----			
		6,853,323	2,955,867,960	0	1,713,630,538
----- ldc=14 pool=MANL					
029	RIFFLE LETTER MAIL	135,487	229,354,579	0	95,698,099
030	MANUAL LTR-OUTGOING PRIMARY	9,350,860	3,687,704,882	0	2,334,186,207
032	MANUAL LTR-INTERNATIONAL EXPORT	14,380	9,684,662	0	7,125,177
033	MANUAL LTR-INTERNATIONAL IMPORT	2,850	11,402,885	0	8,670,681
040	MANUAL LTR-OUTGOING SECONDARY	1,463,351	918,075,439	0	110,741,169
043	MANUAL LTR-STATE DISTRIBUTION	2,533,439	1,351,212,924	0	829,982,578
044	MANUAL LTR-SCF DISTRIBUTION	3,728,032	2,498,598,062	0	1,406,137,904
045	MANUAL LTR-BULK BUSINESS	402,664	307,594,994	0	272,712,187
150	MANUAL LTR-INCOMING PRIMARY	2,368,716	1,221,663,421	0	632,217,635
160	MANUAL LTR-INCOMING SECONDARY	3,384,868	2,261,834,834	0	472,791,903
168	MANUAL LTR-PRIMARY BOX	1,685,502	590,318,709	0	154,630,332
169	MANUAL LTR-SECONDARY BOX	1,204,361	566,544,668	0	110,591,694
		-----			
		26,274,510	13,653,990,059	0	6,435,485,566
----- ldc=14 pool=MANP					
100	MANUAL PARCELS-OUTGOING	352,426	154,419,070	0	147,216,978
102	MANUAL PARCELS-INTERNATIONAL EXPORT	4,282	610,213	0	576,841
103	MANUAL PARCELS-INTERNATIONAL IMPORT	6,036	1,355,961	0	1,350,758
130	MANUAL PARCELS-SCF DISTRIBUTION	359,565	110,119,810	0	105,792,883
200	MANUAL PARCELS-INCOMING	1,000,191	323,762,615	0	289,169,598
202	GPL-INTRNAT EXPRESS EXPORT- MANUAL	1,046	0	0	0
203	GPL-INTRNAT STANDARD EXPORT-MANUAL	23	0	0	0

Attachment 1, Response of United S. Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
205	GPL-INTRNAT EXPRESS IMPORT- MANUAL	2	0	0	0
320	O/G PRIMARY PARCEL - OUTSIDES	390,587	42,458,264	0	41,444,673
325	I/C PRIMARY PARCELS - OUTSIDES	266,670	53,140,878	0	44,978,186
		-----			
		2,380,828	685,866,811	0	630,529,917
----- Idc=14 pool=PRIORITY					
050	PRIORITY-MANUAL OUTGOING	1,470,715	493,907,630	0	422,862,243
051	O/G PRIMARY FLATS - PRIORITY	467,016	211,562,654	0	200,006,571
052	O/G SECONDARY FLATS - PRIORITY	115,498	57,931,930	0	8,461,344
053	IC/PRIMARY FLATS - PRIORITY	321,067	163,120,815	0	150,202,592
054	I/C SECONDARY FLATS - PRIORITY	98,497	71,394,118	0	5,843,718
055	PRIORITY MANUAL INCOMING	1,070,455	420,041,044	0	389,656,160
321	O/G PRIMARY PARCEL - PRIORITY	2,216,495	616,675,394	0	547,810,034
322	O/G SECONDARY PARCELS - PRIORITY	731,939	250,138,068	0	51,506,058
324	I/C PRIMARY PARCELS - PRIORITY	1,785,706	536,937,636	0	507,745,164
326	I/C SECONDARY PARCELS - PRIORITY	824,239	190,336,480	0	18,962,572
		-----			
		9,101,626	3,012,045,769	0	2,303,056,456
		44,610,286	20,307,770,599	0	11,082,702,477
----- Idc=15 pool=AFSM100					
381	VCS FLATS KEYING - CAREER	156,491	25,368,347	25,368,347	0
382	VCS FLATS KEYING - TRANSITIONAL	5,891	0	0	0
389	REC FLAT VCS KEYING	1,523,551	1,693,193,312	1,693,193,312	0
		-----			
		1,685,932	1,718,561,659	1,718,561,659	0
----- Idc=15 pool=LD15 OTH					
081	COA FORMS KEYING	232,283	18,430,923	18,430,923	0
082	PARS IMAGE KEYING	1,145,439	792,942,813	792,942,813	0
383	RBCS LETTER KEYING - CAREER	5,736	0	0	0

Attachment 1, Response of United States Postal Service Witness A. Thomas Bozzo  
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Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
384	RBCS LETTER KEYING - TRANSITIONAL	55.150	0	0	0
387	REC APPS VCS KEYING	225.750	128,385.570	128,385.570	0
388	REC MIXED VCS KEYING	1,811.163	0	0	0
771	RBCS CONTRACTING OFFICERS REP	294	0	0	0
774	RBCS AUDIT MODULE	630	0	0	0
775	RBCS KEYING	4,738.392	4,002,644.792	4,002,644.792	0
776	LETTER MAIL LABELING MACHINE	568.171	1,639,251.232	1,639,251.232	0
779	RBCS GROUP LEADER	136.566	0	0	0
		-----			
		8,919.573	8,300,216.989	8,300,216.989	0
		10,605.505	10,018,778.648	10,018,778.648	0
	----- Idc=17 pool=1CANCEL				
010	HAND CANCELLATIONS	1,646.343	869,913.688	0	0
011	MICRO MARK	171.914	752,241.322	0	0
012	M - 36	4.966	23,322.032	0	0
013	MARK II/HALF MARK	106.289	427,724.809	0	0
014	FLYER	211.060	724,451.680	0	0
015	ADVANCED FACER CANCELLER SYSTEM	1,581.939	26,441,148.118	26,441,212.970	0
016	FLAT CANCELLATIONS	348.332	269,357.836	0	0
017	CANCELLING OPERATIONS MISC	2,940.257	0	0	0
018	COLLECTION MAIL SEPARATION	2,012.700	0	0	0
019	TABBER	166.503	221,416.628	0	0
066	AFCS VIDEO FACING MODE	37.306	494,060.573	541,707.594	0
067	AFCS CANCELLED MODE	23.951	377,563.390	377,563.702	0
		-----			
		9,251.561	30,601,200.076	27,360,484.266	0
	----- Idc=17 pool=1DSPATCH				
124	DISPATCH UNIT -OUTGOING	2,546.376	110,699.001	0	0
125	DISPATCH UNIT -OUTGOING	793.514	65,226.150	0	0



Attachment 1, Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
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MOD	NAME	MODHRS	TPH	TPF	FHP
126	DISPATCH UNIT -INCOMING	1,631,399	29,582,986	0	0
127	DISPATCH UNIT -INCOMING	689,208	5,487,050	0	0
128	OPENING UNIT/DISPATCH UNIT - ADC	768,905	68,457,920	0	0
129	OPENING UNIT/DISPATCH UNIT - ADC	322,065	3,322,104	0	0
		-----			
		6,751,467	282,775,211	0	0
-----	ldc=17 pool=1FLATPRP				
035	FLAT MAIL PREPARATION	9,005,451	16,733,799,813	0	0
-----	ldc=17 pool=1MTRPREP				
020	METERED MIXED PREPARATION	732,212	161,188,502	0	0
021	METERED LETTER PREPARATION	152,186	7,656,497,098	0	0
022	METERED FLAT PREPARATION	13,308	1,102,532,794	0	0
--		-----			
ol		897,706	8,920,218,394	0	0
-----	ldc=17 pool=1OPBULK				
115	OPENING UNIT-OUTGOING,STANDARD	670,255	6,823,390,759	0	0
116	OPENING UNIT-OUTGOING,STANDARD	120,914	1,005,549,122	0	0
117	MANUAL TRAY SEPARATION-STANDARD	1,627,144	6,466,376,433	0	0
185	OPENING UNIT-INCOMING,STANDARD	3,532,840	21,503,608,506	0	0
186	OPENING UNIT-INCOMING,STANDARD	903,396	3,819,633,821	0	0
		-----			
		6,854,548	39,618,558,641	0	0
-----	ldc=17 pool=1OPPREF				
084	PARS MAIL PREP	56,023	0	0	0
110	OPENING UNIT-OUTGOING,PREF	3,107,887	18,890,890,554	0	0
111	OPENING UNIT-OUTGOING,PREF	642,907	5,171,619,337	0	0
112	MANUAL TRAY SEPARATION-PREF	3,211,005	15,154,544,379	0	0
180	OPENING UNIT-INCOMING,PREF	6,483,123	53,855,311,243	0	0
181	OPENING UNIT-INCOMING,PREF	1,911,112	8,101,877,111	0	0

Attachment 1, Response of United S. Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
328	PRIORITY MAIL SHAPE SEP - ORIGIN	207,740	0	0	0
329	PRIORITY MAIL SHAPE SEP-DESTINATION	343,197	0	0	0
343	OPENING UNIT-INTERNATL EXPORT	18,867	21,727,460	0	0
344	OPENING UNIT-INTERNATL IMPORT	41,714	47,012,295	0	0
		-----			
		16,023,575	101,242,982,379	0	0
----- ldc=17 pool=1OPTRANS					
114	MANUAL TRANSPORT/WEIGH (IN-HOUSE)	3,853,207	1,493,292,516	0	0
----- ldc=17 pool=1PLATFRM					
188	AMC/AMF RAMP ACTIVITIES	485,502	0	0	0
210	PLATFORM INBOUND	9,885,459	38,369,153	0	0
211	PLATFORM INBOUND	2,705,750	1,551,346	0	0
212	PLATFORM OUTBOUND	6,963,483	3,678,393	0	0
213	PLATFORM OUTBOUND	915,205	574,173	0	0
214	MANUAL TRANSPORT/WEIGH	1,087,312	12,818	0	0
215	MECHANIZED DUMPING	3,496	0	0	0
225	PLATFORM-MAIL FLOW CONTROL	858,848	300	0	0
229	EQUIPMENT OPERATOR-TOW	10,728,981	30,131	0	0
230	EQUIPMENT OPERATOR-FORKLIFT	3,948,423	268,148	0	0
231	EXPEDITER	8,296,965	17,150	0	0
351	PLATFORM INTERNATIONAL	17,777	319,887	0	0
352	LOAD/UNLOAD AT PIERS-INTERNATIONAL	872	0	0	0
454	CODE/BILL/DISPATCH-INTERNATIONAL	2,075	0	0	0
		-----			
		45,900,146	44,821,499	0	0
----- ldc=17 pool=1POUCHNG					
120	POUCHING OUTGOING	1,999,676	53,758,907	0	0
121	POUCHING OUTGOING	608,112	31,199,057	0	0
122	POUCHING INCOMING	770,319	54,761,890	0	0

Attachment 1, Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
123	POUCHING INCOMING	5,044,294	29,787,937	0	0
345	POUCHING INTERNATIONAL	51,283	500,851	0	0
		-----			
		3,933.685	170,008.642	0	0
----- ldc=17 pool=1PRESORT					
002	PRESORT FCM/PER	941.502	2,352,979,401	0	0
003	PRESORT STANDARD	84,425	1,630,074,351	0	0
	---	---			
	pool	1,025.927	3,983,053,752	0	0
----- ldc=17 pool=1SACKS_H					
235	MANUAL SORT-SACK/OUTSIDES	3,606,561	393,687,584	0	0
348	MANUAL SACK SORT-INTERNATIONAL	402	61,071	0	0
		-----			
		3,606,963	393,748,655	0	0
----- ldc=17 pool=1SCAN					
064	SCANNING OPERATIONS	15,893	0	0	0
118	ACDCS/SAMS	489,640	15,145,462	0	0
189	SCANNING INBOUND MAIL	2,139	0	0	0
208	SWYB/SASWYB	1,458,661	114,443,792	0	0
209	AAA/ATS	504,594	31,151,190	0	0
350	OVERLABEL/DIRECT AO SACK-INTERNATL	173	0	0	0
		-----			
		2,471,099	160,740,444	0	0
		109,575,334	203,251,451,367	27,360,484,266	0
----- ldc=18 pool=BUSREPLY					
573	SHORT PAID/NIXIE-INTERNATIONAL	90,393	0	0	0
930	BUSINESS REPLY/POSTAGE DUE	970,560	205,290,869	0	0
		-----			
		1,060,953	205,290,869	0	0

Attachment 1, Response of United S Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
----- ldc=18 pool=EXPRESS					
131	EXPRESS MAIL DISTRIBUTION	1,439.858	49,419.824	0	0
575	SURFACE AIRLIFT & EXPRESS MAIL INTL	1,048	0	0	0
669	EXPRESS MAIL DISTRIBUTION	1,319.637	64,196.500	0	0
793	EXPRESS MAIL DISTRIBUTION	306.670	7,631.955	0	0
		-----			
		3,067.214	121,248.279	0	0
----- ldc=18 pool=MAILGRAM					
584	MAILGRAM	86.262	0	0	0
----- ldc=18 pool=REGISTRY					
578	REGISTERED MAIL/DIPLOM.POUCHES-INTL	639	0	0	0
585	REGISTRY SECTION	3,922.839	96,468.031	0	0
586	REGISTRY SECTION	304.414	17,496.961	0	0
587	REGISTRY SECTION	55.171	223.879	0	0
588	REGISTRY SECTION	116.679	914.147	0	0
589	REGISTRY SECTION	81.194	1,912.903	0	0
590	REGISTRY SECTION	100.026	517.655	0	0
		-----			
		4,580.963	117,533.576	0	0
----- ldc=18 pool=REWRAP					
109	DAMAGED PARCEL REWRAP	809.471	0	0	0
574	REPAIR & REWRAP-INTERNATIONAL	12.202	0	0	0
		-----			
		821.673	0	0	0
----- ldc=18 pool=1EEQMT					
549	EMPTY EQUIPMENT PROCESSING	912.192	0	0	0
576	EMPTY EQUIPMENT-INTERNATIONAL	560	0	0	0
		-----			
		912.753	0	0	0

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MOD	NAME	MODHRS	TPH	TPF	FHP
----- Idc=18 pool=1MISC					
083	PARS WASTE MAIL	169,128	100,168,136	0	0
132	INTELPOST	1,317	0	0	0
545	FOREIGN MAILS	16,066	0	0	0
546	FOREIGN MAILS	178	0	0	0
560	MISC ACTIVITY-MAIL PROCESSING	3,670,388	0	0	0
561	MISC ACTIVITY-MAIL PROCESSING	1,000,395	0	0	0
562	MISC ACTIVITY-MAIL PROCESSING	900,244	0	0	0
563	MISC ACTIVITY-MAIL PROCESSING	1,177,172	0	0	0
564	MISC ACTIVITY-MAIL PROCESSING	777,068	0	0	0
577	PREP & VERIFY DELV BILLS-INTERNATL	27,796	0	0	0
580	INSURED&RETURNED PARCELS	10,925	0	0	0
681	ADMIN & CLER-PROC & DIST INTERNATL	23,815	0	0	0
		-----			
		7,774,490	100,168,136	0	0
----- Idc=18 pool=1SUPPORT					
340	STANDBY - MAIL PROCESSING	599,627	0	0	0
341	QWL COORDINATOR-NONSUPERVISOR EMPL.	85,175	0	0	0
547	SCHEME EXAMINERS	281,687	0	0	0
548	DETAIL-MAIL ORDER-PUBLISHING HOUSE	31,792	0	0	0
554	OFFICE WORK & RECORDS - MAIL PROC	2,577,476	0	0	0
555	OFFICE WORK & RECORDS - MAIL PROC	524,124	0	0	0
565	TACS FUNCTION 1 OPERATION DEFAULT	655,426	0	0	0
607	STEWARDS - CLERKS - MAIL PROCESSING	1,100,223	0	0	0
612	STEWARDS-MAIL HANDLER - MAIL PROC	501,074	0	0	0
620	TRAVEL-MAIL PROCESSING	149,515	0	0	0
630	MEETING TIME - MAIL PROCESSING	503,081	0	0	0
677	ADMIN & CLERICAL-PROCESSING & DIST	889,346	0	0	0
755	DELIVERY BCS SERVICING	353	0	0	0

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 Redirected from Witness Van-Ty-Smith

MOD	NAME	MODHRS	TPH	TPF	FHP
798	MISCODED/UNCODED MAIL	302.962	10,516.916	0	0
		-----			
		8,201.860	10,516.916	0	0
		26,506.166	554,757.776	0	0
----- ldc=49 pool=LD49					
085	COA SCANNING	5.153	0	0	0
539	ZIP+4 LOOKUP AT CMU/CFS	1.343	0	0	0
792	COMP FORWARD SYS - RETURN TO SENDER	1	0	0	0
795	ADDRESS LABEL PREPARATION	5.965	0	0	0
796	MAIL MARKUP / FORWARDING	44	0	0	0
797	COMPUTER MAIL FORWARDING	1,052.634	0	0	0
		-----			
		1,065.140	0	0	0
		1,065.140	0	0	0
----- ldc=79 pool=LD79					
001	PLATFORM ACCEPTANCE/WEIGHERS UNIT	453.391	0	0	0
550	PRESORT VERIFICATION	207.997	0	0	0
660	MAILING REQUI.& BUSINESS MAIL ENTRY	93.940	0	0	0
697	ADM & CLER-MAIL REQ.&BUS.MAIL ENTRY	43.686	0	0	0
		-----			
		799.015	0	0	0
		799.015	0	0	0
		-----			
		281,671.664	635,990,261.949	454,389,911.538	217,389,507.961

Attachment 2, Response of United S Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

Attachment 2, Response to TW/USPS-T11-1(c)  
BY 2005 BMC Hours and Workloads by Operation  
Source : MODS file, BY 05

MOD	NAME	HRS	TPH	TPF	FHP
001	PLATFORM ACCEPTANCE/WEIGHERS UNIT	37	0	0	0
003	PRESORT STANDARD	0	4,200	0	0
030	MANUAL LTR-OUTGOING PRIMARY	31,010	0	0	0
031	DEBRIS/LOOSE MAIL	569,057	82,010,438	0	0
035	FLAT MAIL PREPARATION	39,693	0	0	0
045	MANUAL LTR-BULK BUSINESS	1,751	1,208,836	0	1,208,836
051	O/G PRIMARY FLATS - PRIORITY	8	0	0	0
054	I/C SECONDARY FLATS - PRIORITY	1,536	724,306	0	724,306
055	PRIORITY - MANUAL INCOMING	2,505	0	0	0
056	GPL-INTRNAT EXPRSS IMPORT - SPBS	36	0	0	0
100	MANUAL PARCELS-OUTGOING	991,238	63,318,736	0	63,193,531
101	MECH PARCEL SORTING - SECONDARY	2,950,498	984,915,323	1,029,217,018	832,696,026
105	MECHANIZED PARCEL SORTER	2,255,893	942,424,942	973,161,073	447,166,432
109	DAMAGED PARCEL REWRAP	483,538	0	0	0
110	OPENING UNIT-OUTGOING PREF	19,115	0	0	0
111	OPENING UNIT-OUTGOING PREF	4,524	1,316,014	0	0
112	MANUAL TRAY SEPARATION - PREF	1,436	44,767	0	0
115	OPEN UNIT - OUTGOING STANDARD	131,948	45,477,795	0	0
116	OPEN UNIT - OUTGOING STANDARD	394,226	1,010,210	0	0
117	MANUAL TRAY SEPARATION - STANDARD	370,142	49,595,388	0	0
120	POUCHING - OUTGOING	168,561	64,169,044	0	0
123	POUCHING - INCOMING	331	0	0	0
130	MANUAL PARCELS-SCF	8	0	0	0
134	SPBS OUTGOING PREF	286	0	0	0
135	SPBS OUTGOING STANDARD	143,316	40,172,647	40,391,233	0

Attachment 2, Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	HRS	TPH	TPF	FHP
136	SPBS INCOMING PREF	44,114	0	0	0
137	SPBS INCOMING STANDARD	1,462,258	404,797,766	411,152,111	0
155	APPS OUTGOING STD	4,452	330,452	422,983	0
157	APPS INCOMING STD	8,575	4,834,107	6,341,660	0
159	APPS PRIORITY - INCOMING	0	346,729	448,200	0
185	OPENING UNIT - INCOMING-STANDARD	102	0	0	0
186	OPENING UNIT - INCOMING-STANDARD	8	0	0	0
200	MANUAL PARCELS-INCOMING	54,516	4,143,170	0	4,145,330
202	GPL-INTRNAT EXPRSS EXPORT - MANUAL	641	0	0	0
208	SWYB/SASWYB	1,830	68,174	0	0
209	AAA/ATS	0	4,532	0	0
210	PLATFORM - INBOUND	1,530,113	49,325	0	0
211	PLATFORM - INBOUND	380,255	0	0	0
212	PLATFORM - OUTBOUND	1,434,775	60,765	0	0
213	PLATFORM - OUTBOUND	293,440	0	0	0
214	MANUAL TRANSPORT/WEIGH	35,071	0	0	0
215	MECHANIZED DUMPING	441,360	0	0	0
225	PLATFORM - MAIL FLOW CONTROL	1,212	0	0	0
229	EQUIPMENT OPERATOR - TOW	1,957,331	382,874	0	0
230	EQUIPMENT OPERATOR - FORKLIFT	2,661,535	6,113,131	0	0
231	EXPEDITER	1,136,662	0	0	0
238	MECHANIZED SORT-SACK/OUTSIDE	1,023,410	226,691,940	245,038,168	0
239	MECHANIZED SORT-SACK/OUTSIDE	555,990	46,020,505	49,258,543	0
244	APPS DUAL OUTGOING PREF	263	0	0	0
245	APPS DUAL OUTGOING STD	400	349,993	509,073	0
247	APPS DUAL INCOMING STD	10,692	5,754,910	8,184,510	0
256	LIPS - INCOMING PREF	577	0	0	0
257	LIPS - INCOMING STANDARD	38,088	14,997,681	15,354,844	0
325	I/C PRIMARY PARCELS - OUTSIDES	76	244,405	0	244,405
329	PRIORITY MAIL SHAPE SEP - DEST	34,660	0	0	0



Attachment 2, Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
Redirected from Witness Van-Ty-Smith

MOD	NAME	HRS	TPH	TPF	FHP
331	AFSM100 OUTGOING PRIMARY	56		0	0
336	AFSM100 INCOMING SECONDARY	2		0	0
340	STANDBY - MAIL PROCESSING	73,553		0	0
341	QWL COORDINATOR - NONSUPER EMPS	30,807		0	0
342	QWL COOR-SUPERVISORY EMP	6		0	0
455	AREA/DISTRICT PROJECTS- SUPERVISION	432		0	0
457	AREA/DISTRICT PROJECTS- SUPERVISION	1,643		0	0
470	AREA/DISTRICT PROJECTS- NON-SUPV	15,110		0	0
471	HEADQUARTERS PROJECTS-SUPV	9		0	0
477	HEADQUARTERS PROJECTS-SUPV	1,320		0	0
515	HEADQUARTERS PROJECTS NON-SUPV	1,580		0	0
541	MISC HUMAN RESOURCE ACTIVITIES	224		0	0
545	FOREIGN MAILS	41,523		0	0
546	FOREIGN MAILS	4,385		0	0
549	EMPTY EQUIP PROCESSING	92,477		0	0
551	CLAIMS & INQUIRIES	88,287		0	0
552	CLAIMS & INQUIRIES	9,490		0	0
554	OFFICE WORK & RECORDS-MAIL PROC	207,358		0	0
555	OFFICE WORK & RECORDS-MAIL PROC	8,948		0	0
560	MISC ACTIVITY-MAIL PROC	237,211		0	0
561	MISC ACTIVITY-MAIL PROC	135,285		0	0
562	MISC ACTIVITY-MAIL PROC	53,421		0	0
563	MISC ACTIVITY-MAIL PROC	62,502		0	0
564	MISC ACTIVITY-MAIL PROC	361,432		0	0
565	TACS FUNCTION 1 OPERATION DEFAULT	14,682		0	0
569	C/RA-NON-FINANCE & PLAN. EMPLOYEE	186		0	0
570	ADMN SERVICES - SUPPLY	4,554		0	0
572	PERSONNEL SECTION	584		0	0
581	INDUSTRIAL ENGINEER	29,978		0	0
582	QUALITY IMPROVEMENT	100,240		0	0

Attachment 2, Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
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MOD	NAME	HRS	TPH	TPF	FHP
584	MAILGRAM	2,933	0	0	0
591	ODIS - FINANCE & PLANNING EMPLOYEE	7,990	0	0	0
592	C/RA-FINANCE & PLANNING EMPLOYEE	597	0	0	0
607	STEWARDS - CLERKS - MAIL PROC	79,880	0	0	0
612	STEWARDS-MAIL HANDLER-MAIL PROC	89,932	0	0	0
616	STEWARDS - MTE	17,813	0	0	0
617	STEWARDS - MVS	2,001	0	0	0
618	LOW COST TRAY SORTER O/G	583,084	64,168,719	66,772,312	0
619	LOW COST TRAY SORTER I/C	34,221	4,663,822	4,738,883	0
620	TRAVEL - MAIL PROCESSING	768	0	0	0
624	TRAVEL - PLANT & EQUIPMENT	1,424	0	0	0
625	MECHANIZED NMO DISTRIBUTION	422,760	25,207,303	25,924,259	17,608,561
627	ROBOTICS - PEDESTAL	33,071	4,123,254	4,329,195	0
628	ROBOTICS - GANTRY OUTGOING	31,314	5,313,028	5,420,918	0
630	MEETING TIME-MAIL PROC	51,956	0	0	0
633	OTHER TIME KEEPING	17,574	0	0	0
634	MEETING TIME PLANT/EQUIP	488	0	0	0
643	INJURY COMPENSATION	3,148	0	0	0
645	PRODUCTION PLANNING	75,252	0	0	0
648	INFORMATION SYSTEMS	150,569	0	0	0
652	LABOR RELATIONS	175	0	0	0
653	SAFETY & HEALTH	14,125	0	0	0
654	EEO	14	0	0	0
656	COMMERCIAL SALES & ACCOUNT MGMT	35,292	0	0	0
660	MAILING REQ & BUSINESS MAIL ENTRY	28,877	0	0	0
665	ADMIN & CLERICAL - ADMINISTRATION	93,846	0	0	0
666	PURCHASING	34,227	0	0	0
668	ADMIN & CLER OPER SUPPT	36,637	0	0	0
671	POSTMASTER/INSTALLATION MANAGER	36,105	0	0	0
672	ADMIN & CLER - PRODUCTION PLANNING	29,488	0	0	0

Attachment 2, Response of United S Postal Service Witness A. Thomas Bozzo  
To Interrogatory of Time Warner, Inc.  
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MOD	NAME	HRS	TPH	TPF	FHP	
673	ADMIN & CLER - INDUSTRIAL ENGR	5,829		0	0	0
676	ADMIN & CLERICAL MAINTENANCE SUPPT	30,158		0	0	0
677	ADMIN & CLER - PROCESSING & DISTRIB	31,991		0	0	0
679	ADMIN & CLER - TRANS. & NETWORKS	169,125		0	0	0
680	ADMIN & CLERICAL - PLANT/EQUIP	36,148		0	0	0
681	ADMIN & CLER - PROC & DIST INTERNTL	6		0	0	0
683	ADMIN & CLER - ACCOUNTING SERVICES	1,049		0	0	0
686	ADMIN & CLERICAL - LABOR REL	2,055		0	0	0
691	ADMIN & CLERICAL - TRAINING SUPPORT	1,796		0	0	0
692	ADMIN & CLERICAL - SAFETY/HEALTH	12,366		0	0	0
697	ADM & CLER-MAIL REQ & BUS.MAIL ENT	34,709		0	0	0
700	SUPERVISOR MANUAL-MP	1,176		0	0	0
701	SUPERVISOR OTHER DIRECT-MP	8,253		0	0	0
702	SUPERVISOR INDIRECT-MP	2,282		0	0	0
745	MAINTENANCE OPERATIONS SUPPORT	451,135		0	0	0
746	TELEPHONE SWITCHBOARD	21,428		0	0	0
747	BUILDING SERVICES	491,862		0	0	0
748	BUILDING SERVICES	960,030		0	0	0
749	BUILDING SERVICES	284,775		0	0	0
750	POSTAL OPERATING EQUIPMENT	1,811,635		0	0	0
751	POSTAL OPERATING EQUIPMENT	750,579		0	0	0
752	POSTAL OPERATING EQUIP	498,957		0	0	0
753	BUILDING SYSTEMS EQUIPMENT	540,490		0	0	0
754	BUILDING SYSTEMS EQUIPMENT	102,869		0	0	0
758	MANAGER TRANSPORTATION & NETWORKS	41,613		0	0	0
759	SUPERVISOR - TRANSPORTATION OPERS	160,449		0	0	0
761	REPAIR-GENERAL MAINTENANCE	59		0	0	0
763	VEHICLE MAINTENANCE FACILITY	35,469		0	0	0
764	MOTOR VEHICLE SERVICE	432,933		0	0	0
765	MOTOR VEHICLE OPERATORS	65,233		0	0	0

Attachment 2, Response of United S. Postal Service Witness A. Thomas Bozzo  
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MOD	NAME	HRS	TPH	TPF	FHP
766	TRACTOR TRAILER OPERATOR	1,151,861		0	0
780	TRAINING - OPERATIONS SUPPORT	2,478		0	0
781	TRAINING - MAIL PROCESSING	149,806		0	0
783	TRAINING - PLANT & EQUIP MAINT	111,188		0	0
785	TRAINING - FINANCE & PLANNING	889		0	0
786	TRAINING - HUMAN RESOURCES	248		0	0
787	TRAINING - CUSTOMER SERV. SUPPORT	291		0	0
788	TRAINING-ADMINISTRATION	791		0	0
789	TRAINING - VEHICLE SERVICES	3,384		0	0
798	MISCODED/UNCODED MAIL	129,739	871,167		0
831	MLOC-OUTGOING PRIMARY	3,910	9,226,344	9,304,813	0
871	MPBCS - OUTGOING PRIMARY	17,733	55,970,985	58,801,638	56,084,635
918	DBCS/DIOSS BCS DPS- 1ST PASS	561		0	0
922	MANAGER IN-PLANT SUPPORT	43,977		0	0
923	STATISTICAL PROGRAMS COORDINATOR	248		0	0
927	MANAGER DISTRIBUTION OPERATIONS	175,020		0	0
928	SUPERVISOR DISTRIBUTION OPERATIONS	1,481,030		0	0
930	BUSINESS REPLY/POSTAGE DUE	5,199		0	0
932	SUPERVISOR INTERNATIONAL	1,969		0	0
933	MANAGER MAINTENANCE OPERATIONS	81,926		0	0
934	MANAGER INFORMATION SYSTEMS	33,374		0	0
951	SUPERVISOR MAINTENANCE OPERATIONS	476,596		0	0
952	MGR/SUPV MAINTENANCE OPERS. SUPPORT	62,995		0	0
953	MANAGER FIELD MAINTENANCE OPERS	3,525		0	0
958	REHABILITATION	27,033		0	0
959	LIMITED DUTY	66,967		0	0
969	STATISTICAL PROGRAMS-INTERNAT	12,955		0	0

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-1. Refer to USPS-T-12, page 26, where you state that the existing operational plan is "*predetermined* from the standpoint of the sorting of any particular piece," and to pages 25-26, where you state that "the organization of the Postal Service processing network is, naturally, subject to change over time."

(a) Indicate the frequency over the period covered by the data used in your econometric study with which organizational changes of the nature referred to on pages 25-26 of your testimony occurred in:

- i. the average MODS facility; and
- ii. a MODS facility experiencing above average growth in mail volumes.

(b) List and fully explain the factors that would cause the Postal Service to institute a change in the organization of mail processing at a specific MODS facility.

(c) Confirm that, holding constant "the organization of the Postal Service processing network" and the mix of mail being processed, steady growth in mail volumes will eventually exhaust the processing capacity of the equipment installed at a particular plant for automated mail processing. If not fully confirmed, explain your answer in detail. If confirmed, describe in detail the changes in (1) equipment, (2) staffing, and (3) operating procedures that would be made in response to such capacity constraints.

Response.

a.-b. Changes to the Postal Service processing network occur on various frequencies, though note that the frequency of changes per se does not determine whether the underlying factors are exogenous or predetermined for plant managers' staffing processes. Changes in delivery points occur more-or-less continuously, but are the result of general economic and demographic factors. Additions or subtractions of post offices, stations, and branches from plants' territories occur over the time horizon of the mail processing analysis, though the total number of served facilities tends to be relatively stable over time and changes are not determined by plant management. Major equipment deployments or retirements, likewise, occur every few years but result from headquarters-level planning processes that are carried out well in advance of

Response of United States Postal Service Witness A. Thomas Bozzo  
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plants' staffing decisions. These frequencies will be qualitatively similar for most MODS facilities; see also the response to part c, below. See also witness Kingsley's testimony from Docket No. R2000-1, USPS-T-10 at 32-35 (Section IV).

c. Partly confirmed. Holding the work content of the mail constant, steady volume growth would eventually exhaust equipment processing capacities. However, my understanding is that volumes have tended to shift towards mail categories which, due to worksharing, have relatively low work content. In this situation, volume growth does not necessarily imply workload growth that would exhaust equipment processing capacities. Moreover, the volume changes over the "rate cycle" are, in fact, relatively small; over longer time horizons, it is not clear that volume increases can be taken for granted.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-2. Refer to USPS-T-12, pages 106-107, Appendix A, equation (A7).

(a) Confirm that, to the extent that the relationship between volume  $V_i$  and cost driver  $D_i$  in the equation  $D_i = g(V_1, \dots, V_N)$  departs in any way from a relationship of strict linear proportionality, that departure will be reflected by the fact that the value term  $O(V_2)$  in equation (A7) will differ from zero for some values of  $V$ . If not confirmed, explain the rationale for your answer in detail.

(b) Confirm that using equation (A8) as a first approximation to equation (A7) is equivalent to assuming that the relationship between volume  $V_i$  and cost driver  $D_i$  is one of strict linear proportionality. If not confirmed, explain the rationale for your answer in detail.

Response.

a. Confirmed.

b. Confirmed that a "first" (i.e., linear) approximation to a function ignores nonlinearities. For additional discussion of the proportionality of volumes and piece handlings given the operational plan, please see also USPS-T-12 at 33-39, especially page 39, lines 10-18.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-3. Refer to USPS-T-12, page 36, where you state that "there is a small chance that the piece will be rejected at some processing stage and receive subsequent handlings in manual or different automated operations."

(a) Describe the information you relied upon in arriving at the conclusion that the chance of such rejection occurring is "small."

(b) Provide a quantitative interpretation of the term "small" as it is used in this statement.

Response.

a. The statement is based on my observations of the relative amounts of rejects and successfully processed pieces in automated mail processing operations.

b. My statement is qualitative and does not depend on any particular quantitative value of "small." Please see the response to TW/USPS-T11-1(b-c) for an indication of the relative amounts of automation and manual piece handlings.



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-4. Refer to USPS-T-12, pages 52-54, in which you describe the model specifications you employed to measure the volume variability of automated and manual mail processing operations. You include a time trend in your automated mail processing cost models and a set of year specific dummy variables in your manual mail processing cost models. You note that including a set of year-specific dummy variables allows you "to control for a more general pattern of time-related demand shifts than a linear time trend would allow." Explain fully why you believe that the inclusion of a time trend is sufficient for automated operations, but that manual operations require the "more general pattern" that inclusion of year-specific dummy variables allows.

Response.

The translog models used for automated operations incorporate a nonlinear (quadratic) time trend. Therefore, the automated and manual operations' models both control for a "more general pattern of time-related demand shifts than a linear time trend would allow."

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-5. Refer to USPS-T-12, page 54. Although you state that the estimated functions for the manual cost pools include a set of year specific dummy variables, the mathematical representation of your model shown in equation (17) includes both a time trend and a set of year specific dummy variables.

(a) Indicate whether equation (17) accurately describes the model specification actually employed for the manual cost pools.

(b) If the answer to (a) is no, supply a corrected representation of the mathematical form of the model.

(c) If the answer to (a) is yes, explain in detail how you are able to avoid perfect multicollinearity despite the simultaneous presence in the model of a time trend and a set of year specific dummy variables.

Response.

a. Equation (17) accurately reflects the model specification.

b. Not applicable.

c. The combination of the year specific dummy variables and the linear time trend permits piecewise (year) shifts in the time trend. Since the time trend has variation within year, the inclusion of both the year dummies and the time trend does not, in itself, lead to perfect multicollinearity.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-6. Refer to USPS-T-12, pages 58-59, where, in the course of discussing the wage data used in your analysis, you state that "most of the important differences in compensation at the cost pool level (due to skill levels, pay grades, etc.) are related to the type of technology (manual, mechanized, or automated)."

(a) Your statement suggests that differences in average wages paid to mail processing workers are determined in large part by automation decisions made by the Postal Service. Confirm that a situation in which differences in wage levels depend upon Postal Service automation decisions would be one in which wages were endogenous and your econometric results were subject to simultaneity bias. If you do not fully confirm, explain in detail.

(b) Describe in detail the exogenous factors that would give rise to cross-sectional differences in wage levels or that would cause trends in wage to differ from one site to another.

(c) Confirm that a facility whose workload was growing disproportionately rapidly and that was, as a result, hiring workers more rapidly than other facilities would tend to have a disproportionately larger share of low seniority workers and lower average wage levels, all else equal. If you do not fully confirm, explain in detail.

Response.

a. Not confirmed. First, the question erroneously suggests that "endogenous" factors imply "simultaneity bias." As the name suggests, only "endogenous" factors that are also "simultaneous" lead to simultaneity bias. In particular, "predetermined" factors do not lead to simultaneity bias. Second, my understanding is that differences in relative wages between LDCs for automated and manual operations depend primarily on predetermined factors such as contractual terms that determine pay levels for various craft employee assignments. Note also that relative wages between manual and automated operations will not depend on the automated/manual operation mix.

b. I do not use wage levels in my analysis, and have not studied factors that affect wage levels in detail.

Response of United States Postal Service Witness A. Thomas Bozzo  
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c. Not necessarily. It is possible that the positions could be filled with higher-seniority workers, for example transfers from other facilities.

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(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-7. Refer USPS-T-12, page 62. You state in your discussion of ODIS that "ZIP Codes are aggregated to facility ID numbers based on the mail processing scheme described above." Identify the specific mail processing scheme to which this statement refers.

Response.

The mail processing scheme is from the Domestic Mail Manual Labeling List

L002, Column B.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-8. Refer to USPS-T-12, page 70, Table 10.

(a) Confirm (1) that the "BCS Outgoing" operation processes mail originating within the service territory of the plant in question; and (2) that the "BCS Incoming" operation processes mail originating from other plants destined to addresses within the service territory of the plant in question. If not fully confirmed, explain in detail.

(b) Explain in detail why the "BCS Outgoing" operation shows a large, positive, and statistically significant elasticity with respect to deliveries, while the "BCS Incoming" operation shows essentially a zero elasticity.

Response.

a. Partly confirmed. Mail originating at other plants is a portion, but in general not the entirety, of the mail processed in "BCS Incoming" operations.

b. The difference between the elasticities (assuming independence) has a standard error of 0.2, or 1.75 standard errors, and is only marginally statistically significant—the significance level is approximately 8 percent based on the normal distribution.

To the extent that *fixed components of a network effect dominate*, network effects would be incorporated into the facility-specific fixed effects. So, variance issues aside, it would be inappropriate to draw conclusions regarding the relative importance of network factors solely from the deliveries elasticities.

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(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-9. Refer to USPS-T-12, page 27, Table 2; page 71, Table 11; and page 72, Table 12. Although the FSM 1000 and AFSM 100 cost pools show very similar activity compositions according to the IOCS data summarized in Table 2, they show markedly different volume variabilities in Tables 11 and 12. Describe and explain in detail the operational differences between these two operations that account for these markedly different cost variability results.

Response.

Several significant operational differences may contribute to the differences in the measured volume-variability factors for the FSM 1000 and AFSM 100 cost pools. These include:

- The AFSM 100 is machine-paced; the FSM 1000, in keying mode (which accounts for most of the workhours in the FSM 1000 cost pool), is operator-paced. As a result, it cannot be assumed that FSM 1000 runtime is exactly 100 percent volume-variable.
- Some AFSM 100 rejects flow to the FSM 1000, so the latter must be staffed to absorb variations in the reject flow.
- The FSM 1000 is used for relatively limited volumes of difficult pieces, such as newspapers and large-format flats, also affecting the regularity of the flow of mail to and through the operation.
- FSM 1000 operations include some flat prep work, which has indeterminate but possibly less-than-100 percent variability, whereas AFSM 100 prep work is carried out almost exclusively in the 1FLATPRP cost pool.
- Since the startup period for the AFSM 100 is in the regression sample and not specifically controlled for, the Postal Service's AFSM 100 volume-variability factor may reflect some inframarginal costs and thus be conservatively high.

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It should be noted that while the IOCS data provide information on the relative prevalence of activities that should have relatively high volume-variability (e.g., runtime) and activities that should have very low volume-variability (e.g., setup time, waiting time), the complexities of most Postal Service operations are such that arguments classifying activities into 100% variable and non-volume-variable categories will "not account for all factors that might affect a proper analysis of variability." USPS-T-12 at 77-79.



Response of United States Postal Service Witness A. Thomas Bozzo  
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UPS/USPS-T12-10. Refer to USPS-T-12, page 80, Table 18. Although the FSM 1000 cost pool has lower percentages of employee time in what you characterize as "fixed" activities than the AFSM 100 cost pool, you report a substantially lower volume variability for the FSM 1000 cost pool. Explain in detail the operational basis for the lower volume variability that you report for the FSM 1000 cost pool.

Response.

Please see the response to UPS/USPS-T12-9.

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(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-11. Refer to USPS-T-12, pages 87-88. You report alternative results for automated operations based upon FE/IV estimation. However, in deriving these results you do not employ the full translog specification shown in equation (16) on page 53, but rather the linear specification shown in equation (17) on page 54. In Table 16 on page 75, you report the results of a series of Wald tests that reject the null hypothesis of the linear specification in favor of the full translog specification.

(a) In view of your rejection of the linear specification for automated operations, explain in detail why you chose to test the effects of FE/IV estimation using the linear [sic] rather than the full translog specification.

(b) In order to facilitate an assessment of what portion of the differences shown in Table 20 on page 88 of your testimony can be attributed to the use of FE/IV estimation and what portion can be attributed to the use of the linear specification, provide variability results comparable to those shown in Table 20 based on either (1) use of FE/IV estimation in combination with the full translog specification shown in equation (16), or (2) use of FE/GLS estimation in combination with the linear specification shown in equation (17).

Response.

a. Identification and estimation of the translog/IV model cannot be implemented as a straightforward generalization of the log-linear IV model, in contrast to the relationship between the log-linear and translog OLS and GLS models. Given the relative inefficiency of IV estimation, I considered the properties of the log-linear model sufficient to provide reliable estimates.

b. The elasticities from FE/GLS estimation of equation (17) are provided in the table below.

Cost Pool	Log-Linear FE/GLS Variability
BCS Outgoing	0.72 (0.64, 0.81)
BCS Incoming	0.50 (0.39, 0.60)
OCR	0.59 (0.54, 0.64)
FSM/1000	0.73 (0.69, 0.76)

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Cost Pool	Log-Linear FE/GLS Variability
AFSM100 Total	0.91* (0.87, 0.95)
-- Incoming	0.72 (0.68, 0.76)
-- Outgoing	0.20 (0.18, 0.22)
SPBS	0.66 (0.61, 0.71)

95% confidence interval in parentheses.

\* Difference in total is due to rounding

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-12. Refer to USPS-T-12, pages 93-95.

(a) Confirm that, in the econometric analyses summarized in Table 23, manual letter piece handlings are being employed as right-hand side variables. If you do not fully confirm, explain in detail.

(b) Confirm that, in the econometric analyses summarized in Table 24, manual flats piece handlings are being employed as right-hand side variables. If you do not fully confirm, explain in detail.

(c) Confirm that both manual letter and manual flats piece handlings are subject to measurement error. If you do not fully confirm, explain in detail.

(d) Confirm that, because of the measurement error in the manual letter and flats piece handling series, the regression results presented in Tables 23 and 24 are potentially subject to bias. If you do not fully confirm, explain in detail.

(e) Explain in detail the basis for your assertion on pages 93-94 that "the small manual cross-elasticities indicate it is very unlikely that correcting for measurement error in the manual sorting volumes would materially affect the results," given that the results you cite are subject to unknown biases.

Response.

a. Confirmed.

b. Confirmed.

c. Confirmed.

d. Confirmed.

e. The question is incorrect to suggest that the relative magnitudes of the potential biases are unknown. Those are not unboundedly large, but rather depend on the measurement error variance and the amount of "within" variation; comparison of instrumental variables (IV) and non-IV elasticity estimates provides some indication of the relative magnitudes. As a result, the qualitative conclusion that the cross-elasticities are small is robust to reasonable values of the possible measurement error effects. Please see also Prof. Greene's rebuttal testimony from Docket No. R2000-1, USPS-RT-7, at 21-26 (Tr. 46-E/22056-22061).

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-13. Refer to USPS-T-12, page 97, where you state that you eliminate observations with one or more "bad" higher frequency components, and refer to the TSP programs located in USPS-LR-L-56 under Section1\Programs\Alternative Runs\Alternative Data Screens. This interrogatory refers to all the programs performing alternative data screens, but please refer in particular to varmp\_man\_LETFLT\_9905\_ap.tsp as an example. Line 345 has code that marks for omission records where the number of good TPH AP is less than 3. You indicate on page 4 that there are four accounting periods in the fourth postal quarter.

- (a) Explain in detail why the cut-off for your screen is not 4 for the fourth quarter records.
- (b) Explain in detail why the cut-off for the weekly screening is 12 for all quarters even though the fourth quarter contains more weeks.
- (c) If the cut-offs used were erroneous, provide updated versions that correct the errors for all affected tables.

Response.

a.-b. The fourth quarter values of the screening variables are scaled to account for the additional AP (or weeks). Therefore, it is possible to use the same cutoff value for all four quarters. Please see commands 7 and 37-39 of the program listing in varmp\_man\_LETFLT\_9905\_ap.out.

c. Not applicable.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-14. Refer to USPS-T-12, page 62, which states that "ODIS is a statistical sampling system designed to measure originating and destinating mail volumes."

(a) Identify all instances in which you have relied on or used in your testimony in any way DLETTERS, DFLATS, and/or DPARCELS variables derived from ODIS.

(b) How are these data gathered for ODIS? Are the data derived from actual counts or is the mail weighed and then the volumes are calculated in some manner from the weights? Provide any manuals that describe the data gathering process.

(c) Provide separately the originating and destinating mail volumes by subclass and shape from ODIS data by quarter and IDNUM in a similar format as the excel file Section1\Data\vv9905.xls of USPS-LR-L-56.

(d) Explain in detail why the ODIS data need to be scaled up to match the RPW volumes.

(e) What is the magnitude of the discrepancy between the ODIS volume totals and the RPW volumes? Explain your answer in detail.

Response.

a. The destinating volume variables are used as instrumental variables in the LIML models for manual operations.

b. Please see USPS-LR-L-14 for ODIS-RPW statistical documentation, and Docket No. R2005-1, USPS-LR-K-22 for the data collection manual.

c. Please see file ups-14c-odisrpw.xls, which will be provided in USPS-LR-L-164, for the requested data. It is my understanding that at this level of geographical disaggregation (plant service territories), ODIS-RPW is designed to achieve certain levels of statistical accuracy for a much more limited number of mail categories than were requested in this interrogatory. The volume estimates provided may be subject to high levels of sampling variation, depending on how small the mail category is. Please see also the testimony of witness Pafford (USPS-T-3).

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

- d. For my purposes, it is **not** strictly necessary to scale the ODIS data to match RPW volumes. The discrepancy arises because the ODIS data are sampling-based estimates, whereas significant portions of total RPW volume are obtained from mailing statements and thus not subject to sampling variation.
- e. Please see the response to PSA/USPS-T13-3.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-15. Refer to USPS-LR-L-56, section II.E. "Preparation of the Management Operating Data System (MODS) Data," starting at page 21. State whether you do or do not replace TPF with TPH where TPH is greater than TPF as is done in yr\_scrub.tsp (page 39). If not, explain in detail the discrepancy between your two methods for treating TPF.

Response.

The models for automated operations replace TPF with TPH when TPH is greater than TPF. The substitution is done within the estimation programs.



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-16. Refer to USPS-T-12, section V.C.4, at page 60.

(a) Explain in detail how the capital index variables are created. How do you define "capital"? Specifically, which expense items are included in the capital index?

(b) Provide disaggregate components of the capital index for each IDNUM and quarter and explain in detail how they are combined to create the capital index.

(c) Describe your indexing method in detail and provide a reference.

(d) Compare your method for computing a capital index with the method used by Professor Roberts. Are there differences in the expense categories that you consider to be "capital"? Explain in detail.

Response.

a.-c. The capital variables in USPS-LR-L-56 represent quarterly flows of capital services. *They disaggregate servicewide capital services indexes produced for the Postal Service's TFP model. The 'distribution key' is the relative capital stock. Please see Docket No. R2000-1, Tr. 15/6267. Please see also USPS-LR-L-56, pages 42-44, and file "Capital Index.xls" for additional information. For additional reference, please see Dianne Christensen, Laurits Christensen, Carl Degen and Philip Schoech, "Capital in the U.S. Postal Service," in Dale Jorgenson and Ralph Landau (eds.), *Technology and Capital Formation* (MIT Press, 1989), pp. 409-450.*

d. I assume you are referring to Prof. Roberts's 2006 paper. My understanding is that Prof. Roberts used the equipment-specific capital variables from Docket No. R2005-1, USPS-LR-K-56, so his results incorporate the same expense categories, though at a different level of equipment disaggregation.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-17. Refer to USPS-LR-L-56, pages 13 and 21, regarding the Postal Service Corporate Database MODS File.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.
- (e) Provide a current version of the MODS manual and any other documents that describe how the MODS data are collected.

Response.

a.-c. Please see the response in Docket No. R2000-1 to UPS/USPS-T15-3, attached, and Docket No. R2000-1, USPS-LR-I-201.

d.-e. Please see USPS-LR-L-150.

Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

UPS/USPS-T15-3. For the Management Operating Data System initially referred to at page 1 of your testimony:

- (a) List the full set of variables contained in the file, along with their definitions;
- (b) Indicate the time period covered by the file;
- (c) Describe the unit of observation, that is, the entity to which individual records in the file correspond;
- (d) Describe the universe of installations contained in the file; and
- (e) Provide any manuals or other documentation available for the file.

UPS/USPS-T15-3 Response.

- a. A FOCUS data dictionary report for the MODS file will be provided in LR-I-201.
- b. MODS data from FY1991 to the present are currently available on the Postal Service's Corporate Data Base. The data frequency is accounting period. Some earlier data also exist, including the data from Dr. Bradley's MODS data set (see Docket No. R97-1, USPS-LR-H-148).
- c. Since the MODS file is a FOCUS database, the record levels are user-defined. It is my understanding that the finest level of "units of observation" in the MODS file is the combination of Finance number and 3-digit MODS operation number.
- d. The "universe of installations" is the set of Finance numbers reporting data to MODS. These include most "Function 1" mail processing facilities (except BMCs) and some stations, branches, and associate offices.
- e. See Docket No. R97-1, LR-H-147.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-18. Refer to USPS-LR-L-56, page 15, regarding the Address Information System (AIS) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.

Response.

a.-d. A data dictionary is available at

<http://www.ribbs.usps.gov/files/addressing/pubs/ais.pdf>. The Delivery Statistics

Product was used. Please see also the response in Docket No. R2000-1 to

UPS/USPS-T15-4, attached, and Docket No. R2000-1, USPS-LR-I-201.

Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

UPS/USPS-T15-4. For the Address Information System referred to at pages 89-90 of your testimony:

- (a) List the full set of variables contained in the file, along with their definitions;
- (b) Indicate the time period covered by the file;
- (c) Describe the unit of observation, that is, the entity to which individual records in the file correspond;
- (d) Describe the universe of installations contained in the file; and
- (e) Provide any manuals or other documentation available for the file.

UPS/USPS-T15-4 Response.

- a. A file format description will be provided in LR-I-201 for the AIS Delivery Statistics File, the specific Postal Service address information system product referenced.
- b. The time period covered by the Delivery Statistics File data to which I have access is FY1988-present. See USPS-T-15 at page 90, lines 1-2 and footnote 48 for the data frequency. I do not have ready access to the Delivery Statistics File data for some accounting periods prior to FY1993. It is also my understanding that earlier data may exist, possibly in a different format.
- c. The "unit of observation" in the AIS Delivery Statistics File is the delivery route, post office box section, or set of highway contract deliveries.
- d. My understanding is that the AIS Delivery Statistics File encompasses all Finance numbers with city, rural, post office box, or highway contract deliveries.
- e. A delivery statistics technical guide and AIS product and services guide will be provided in LR-I-201.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-19. Refer to USPS-LR-L-56, page 16, regarding the Address List Management System (ALMS) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.

Response.

a.-d. Please see the response in Docket No. R2000-1 to UPS/USPS-T15-5, attached, and Docket No. R2000-1, USPS-LR-I-201.

Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

UPS/USPS-T15-5. For the Address List Management System referred to at pages 89 and 90 of your testimony:

- (a) List the full set of variables contained in the file, along with their definitions;
- (b) Indicate the time period covered by the file;
- (c) Describe the unit of observation, that is, the entity to which individual records in the file correspond;
- (d) Describe the universe of installations contained in the file; and
- (e) Provide any manuals or other documentation available for the file.

UPS/USPS-T15-5 Response.

- a. A file format description will be provided in LR-I-201.
- b. The time period covered by the ALMS data to which I have ready access is March 1993-present. The ALMS data frequency is monthly; see LR-I-107 at page 18. It is my understanding that earlier data may exist, possibly in a different format.
- c. The "unit of observation" in ALMS is the post office, station, or branch. It is my understanding that ALMS also includes records for contract stations, unique ZIP Codes, and the like.
- d. My understanding is that ALMS encompasses all post offices, stations, branches, and other units listed in the response to part (c) of this interrogatory.
- e. An ALMS guide will be provided in LR-I-201.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-20. Refer to USPS-LR-L-56, page 16, regarding the Facility Master System (FMS) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.

Response.

a.-d. Please see the response in Docket No. R2000-1 to UPS/USPS-T15-8, attached, and Docket No. R2000-1, USPS-LR-I-201.



Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

UPS/USPS-T15-8. For the Facility Master System referred to at pages 89 and 93 of your testimony:

- (a) List the full set of variables contained in the file, along with their definitions;
- (b) Indicate the time period covered by the file;
- (c) Describe the unit of observation, that is, the entity to which individual records in the file correspond;
- (d) Describe the universe of installations contained in the file; and
- (e) Provide any manuals or other documentation available for the file.

UPS/USPS-T15-8 Response.

Please note that the reference at page 93, line 6, of USPS-T-15 should read "Facility Management System" instead of "Facility Master System." The system's name appears correctly at page 89, lines 11-12, of USPS-T-15.

- a. A file format description will be provided in LR-I-201. See also the response to part (e) of this interrogatory.
  - b. The time period covered by the FMS data to which I have ready access is FY 1983-present. The data frequency is quarterly from FY1992-present. Prior to FY1992, the FMS data frequency is annual.
  - c. The "unit of observation" in FMS is the Postal Service facility, owned or rented. That is, each plant, post office, station, branch, or other type of Postal Service facility appears as a separate record in the file.
  - d. My understanding is that FMS encompasses all real estate occupied by the Postal Service.
-

Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

- e. See Docket No. R94-1, USPS-LR-G-120, part c, for Handbook RE-3 ("Facilities Management System").

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-21. Refer to USPS-T-12, section V.C.3 "Accounting Data–NCTB" at pages 59-60, and USPS-LR-L-56, page 28, regarding the National Consolidated Trial Balance (NCTB) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.
- (e) Identify all instances in which you have relied on or used in your testimony in any way the output of nctb.f (revenue account data from NCTB).
- (f) What types of expenses are classified as "aggregate materials"?
- (g) Identify all instances in which you have relied on or used in your testimony in any way the aggregate materials expense data contained in NCTB.
- (h) Identify all instances in which you have relied on or used in your testimony in any way the building expense data contained in NCTB.
- (i) Identify all instances in which you have relied on or used in your testimony in any way the equipment rental expense data contained in NCTB.
- (j) Identify all instances in which you have relied on or used in your testimony in any way the transportation expense data contained in NCTB.

Response.

- a. The variables in the file are provided in the table below:

Variable	Description
WS-FIN-OUT	Finance Number
WS-ACCT-OUT	Account Number
WS-SUB-ACCT	Sub-account Number
WS-YTD-DATA	Year-To-Date Account Balance

b. I am not aware of the earliest available data. My understanding is that at least some historical data may be available covering the start of the period for my analysis for Docket No. R2000-1, USPS-T-15.

c. The unit of observation is the finance number, account, and sub-account.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

- d. Please see USPS-LR-L-50, file CostSeg05.rtf, for a list of accounts and descriptions.
- e. Building and PSE rental expenses are inputs to the QICAP1 facility capital input index.
- f. Please see the file "Material Accounts.xls," which will be provided in USPS-LR-L-164, for a list of accounts for materials expenses.
- g. I do not use materials expenses in my analysis.
- h. Building (rental) expenses are a component of the QICAP1 facility capital input index.
- i. Equipment rental expenses are a component of the QICAP1 facility capital input index.
- j. I do not use NCTB transportation expense data.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-22. Refer to USPS-LR-L-56, page 29, regarding the National Workhours Reporting System (NWRS) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.

Response.

a.-d. Please see the response in Docket No. R2000-1 to UPS/USPS-T15-6, attached. Please see also USPS-LR-L-55, Section I, for definitions of the NWRS Labor Distribution Codes (LDCs).

Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

UPS/USPS-T15-6. For the National Workhour Reporting System referred to at pages 89 and 91-92 of your testimony:

- (a) List the full set of variables contained in the file, along with their definitions;
- (b) Indicate the time period covered by the file;
- (c) Describe the unit of observation, that is, the entity to which individual records in the file correspond;
- (d) Describe the universe of installations contained in the file; and
- (e) Provide any manuals or other documentation available for the file.

UPS/USPS-T15-6 Response.

- a. A file format description will be provided in LR-I-201.
  - b. The time period covered by the NWRS data to which I have access is FY 1987-present. The data frequency is accounting period. I do not have ready access to the NWRS data for some accounting periods prior to FY 1992. It is also my understanding that earlier data may exist, possibly in a different format.
  - c. The "units of observation" in NWRS are the Finance number and Labor Distribution Code (LDC). The LDC partitions the workhours and related salary and benefits expenses into broad operational categories. See Docket No. R97-1, LR-H-146 at pages I-32 to I-38 for descriptions of the LDCs.
  - d. My understanding is that NWRS encompasses all Finance numbers reporting labor expenses.
  - e. I am not aware of any NWRS manual. However, if responsive material is located, it will be provided in LR-I-201.
-

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-23. Refer to USPS-LR-L-56, page 30, regarding the Origin Destination Information System (ODIS) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.

Response.

a.-d. Please see the response to UPS/USPS-T12-14b.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-24. Refer to USPS-LR-L-56, page 31, regarding the Property Equipment Accounting System (PEAS).

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.
- (e) Provide an excel file(s) that contain(s) the counts of each type of equipment for each year available by IDNUM. Include a key that describes the equipment, its purpose, and whether is categorized as Customer Service Equipment (CSE), Postal Support Equipment (PSE), Automated Handling Equipment (AHE), or Mechanized Handling Equipment (MHE).
- (f) Identify all instances in which you have relied on or used in your testimony in any way the CSE stocks created from PEAS.
- (g) Identify all instances in which you have relied on or used in your testimony in any way the PSE stocks created from PEAS.

Response.

a. Please see the file "PEAS format.xls," which will be provided in USPS-LR-L-164.

b. PEAS data are available for FY 2004 and FY 2005 at monthly frequency.

PEAS replaced the PPAM system.

c. The unit of observation in PEAS is the piece of Postal Service property, identified by finance number, PCN, and contract number.

d. I am not aware of responsive material, but if such material is located, it will be provided in USPS-LR-L-164.

e. My understanding is that it is not possible to obtain a count of equipment from PEAS, since machines and retrofits/upgrades are represented with separate records. Also, each contract number associated with a given piece of equipment has a separate record. Please see USPS-LR-L-56, files "Equipment [year].xls" for the MPE data. (Prior to FY 2004, these data are from PPAM.) "PCN-



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

MPE.xls" provides a key to the PCN codes. Please see also the response to USPS/USPS-T12-25.

f. I do not use CSE stocks in my analysis.

g. PSE stocks are a component of the QICAP1 facility capital index.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-25. Refer to USPS-LR-L-56, page 31, regarding the Personal Property Asset Master (PPAM) data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.
- (e) Provide an excel file(s) that contain(s) the counts of each type of equipment for each year that is available by IDNUM. Include a key that describes the equipment, its purpose, and whether is categorized as Customer Service Equipment (CSE), Postal Support Equipment (PSE), Automated Handling Equipment (AHE), or Mechanized Handling Equipment (MHE).
- (f) Identify all instances in which you have relied on or used in your testimony in any way the CSE stocks created from PPAM.
- (g) Identify all instances in which you have relied on or used in your testimony in any way the PSE stocks created from PPAM.

Response.

a.-d. Please see the response in Docket No. R2000-1 to UPS/USPS-T15-7, attached, and Docket No. R2000-1, USPS-LR-I-201. The PEAS system replaced PPAM in FY 2004.

e. My understanding is that it is not possible to get an accurate machine count from PEAS. Retrofits and other adjustments are made as separate records. Also, each contract number associated with a given piece of equipment has a separate record. Please see also the response to UPS/USPS-T12-2e.

f. Please see the response to UPS/USPS-T12-24f.

g. Please see the response to UPS/USPS-T12-24g.

Response of United States Postal Service Witness Bozzo  
To Interrogatories of United Parcel Service

UPS/USPS-T15-7. For the Personal Property Asset Master referred to at pages 89 and 93-94 of your testimony:

- (a) List the full set of variables contained in the file, along with their definitions;
- (b) Indicate the time period covered by the file;
- (c) Describe the unit of observation, that is, the entity to which individual records in the file correspond;
- (d) Describe the universe of installations contained in the file; and
- (e) Provide any manuals or other documentation available for the file.

UPS/USPS-T15-7 Response.

- a. A file format description will be provided in LR-I-201.
  - b. The time period covered by the PPAM data to which I have ready access is FY 1985-present. The data frequency is annual prior to FY 1990 and accounting period since FY 1990.
  - c. The "unit of observation" in PPAM is the piece of property.
  - d. My understanding is that the PPAM encompasses all Finance numbers with Postal Service equipment.
  - e. See Handbook F-43 ("Property Code Numbers"), a partial update to Handbook F-43, and Handbook F-26 ("Personal Property Accounting"), which will be provided in LR-I-201.
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Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-26. Refer to USPS-LR-L-56, page 33, regarding the Remote Encoding Center (REC) Data.

- (a) List the full set of variables contained in the file, along with their definitions.
- (b) Indicate the time period covered by the file.
- (c) Describe in detail the unit of observation, that is, the entity to which individual records in the file correspond.
- (d) Provide any manuals or other documentation available for the file.
- (e) Identify all instances in which you have relied on or used in your testimony in any way the REC data.

Response.

a. Please see the file REC format.xls, which will be provided in USPS-LR-L-164.

b.-c. Records correspond to plants and the corresponding REC sites. The REC data are monthly from FY 2003-FY 2005. Prior to FY 2003, the files were weekly.

d. I am not aware of any responsive material specific to the REC data. However, note that the data on image processing volumes are inputs to the MODS system.

e. The REC data are used to distribute REC inputs to the plants served by the RECs. This processing is carried out to enable a future update to the REC variability analysis.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-27. Refer to USPS-T-12, page 60, section V.C.4, "Captial (sic) Data—FMS, PPAM/PEAS," where you state that "[t]he beginning-of-the-year owned square footage is rolled up to facility ID number, which is then used to split out the quarterly national building occupancy expenses from NCTB."

(a) Identify all instances in which you have relied on or used in your testimony in any way the resulting split-out national building occupancy expenses.

(b) Do the national building occupancy expenses include rental expenses? Explain in detail.

(c) If your answer to (b) is yes, is it therefore implicitly assumed that each facility ID owns square footage in the same proportion as it rents square footage? If so, what is the support for this assumption?

(d) Do the building occupancy expenses enter the capital index? If so, does each operation at the same facility in the same quarter receive the same value for this component of capital costs?

(e) What is your evidence that changes in square footage of a facility change the productivity of labor of any operation groups?

Response.

a. Building occupancy expenses are an input to the QICAP1 facility capital variable.

b. No. Observations of QICAP1 for a site include real site-specific rental expenses from NCTB.

c. Not applicable.

d. Building occupancy costs do not enter the equipment capital indexes. They are included in the QICAP1 index as indicated in the response to part a.

e. Facility size may affect productivities in certain cost pools, particularly allied labor operations (e.g., platform, mail transport, and dispatching operations) by determining the distances over which mail must be moved from operation to operation and between operations and staging areas. Presently, allied labor operations are beyond the scope of my analysis.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-28. Refer to USPS-LR-L-56, pages 37-39, section III, "Development of MODS Productivity Data for Cost Studies."

(a) Identify all instances in which you have relied on or used in your testimony in any way the PFY 2005 productivities (TPH/hour) found in yr\_scrub05.txt incorporated in YRscrub2005.xls.

(b) Why are the data in yr\_scrub05.txt only produced for FY 2005?

(c) Provide more detailed definitions of the 52 operational groups listed on page 38, including definitions for each acronym used in this table.

(d) Indicate the value cutoffs for top and bottom non-zero 1% of productivities by IDNUMS and AP that are used in yr\_scrub.tsp.

(e) Provide any information from the manufacturer on expected productivities for each operational group.

(f) Explain in detail why you set TPF equal to TPH in cases where TPH is greater than TPF as is done in yr\_scrub.tsp (see page 39).

Response.

a. I do not use the productivities in the YRscrub2005.xls file, but rather provide those for use as inputs to the Postal Service's mailflow models; see USPS-T-12 at 1-2.

b. My understanding is that the mailflow models are populated with the most recent available productivities.

c. Please see the table provided as Attachment 1 to this response for an expansion of the acronyms and abbreviations of the operation groups. A file detailing the MODS operations assigned to each group will be provided in USPS-LR-L-164.

d. As is evident from the yr\_scrub.tsp program code, the program does not employ value cutoffs. Assuming the question regards the implicit cutoffs resulting from the productivity distributions, a file showing the distribution of the observations pre- and post-screening will be provided in USPS-LR-L-164.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

e. Witness McCrery provides additional descriptions of mail processing equipment, including nominal throughput rates, in USPS-T-42. Realized productivities will depend on various other factors, including actual staffing levels, and fractions of clocked-in time spent in "overhead" and "quasi-allied labor" activities.

f. Please see Docket No. R2000-1, USPS-T-15 at 107-108 (Section VI.E.2).

Response of United States .I Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

Attachment 1, Response to UPS/USPS-T12-28

<u>Group</u>	<u>Description</u>	<u>Expanded Description</u>
1	Out ISS Primary and Secondary	Outgoing Input Sub System Primary and Secondary
2	In ISS Primary and Secondary	Incoming Input Sub System Primary and Secondary
3	REC Mixed-Shape Keying	Remote Encoding Center Mixed-Shape Keying
4	LMLM	Letter Mail Labeling Machine
5	Out OSS Primary and Secondary	Outgoing Output Sub System Primary and Secondary
6	In OSS Primary and Secondary	Incoming Output Sub System Primary and Secondary
7	Out BCS Primary	Outgoing Barcode Sorter Primary
8	Out BCS Secondary	Outgoing Barcode Sorter Secondary
9	In BCS MMP	Incoming Barcode Sorter Managed Mail Program
10	In BCS SCF/Primary	Incoming Barcode Sorter Sectional Center Facility/Primary
11	In BCS Secondary (1 Pass)	Incoming Barcode Sorter Secondary (1 Pass)
12	In BCS Secondary (2 Pass)	Incoming Barcode Sorter Secondary (2 Pass)
13	In BCS Secondary (3 Pass)	Incoming Barcode Sorter Secondary (3 Pass)
14	Manual Out Primary	Manual Outgoing Primary (Letters)
15	Manual Out Secondary	Manual Outgoing Secondary (Letters)
16	Manual In MMP	Manual Incoming Managed Mail Program (Letters)
17	Manual In SCF/Primary	Manual Incoming Sectional Center Facility/Primary (Letters)
18	Manual In Secondary	Manual Incoming Secondary (Letters)
19	Riffle Letters	n/a
21	AFSM100 Out Primary	Automated Flats Sorting Machine 100 Outgoing Primary
22	AFSM100 Out Secondary	Automated Flats Sorting Machine 100 Outgoing Secondary
23	AFSM100 In MMP	Automated Flats Sorting Machine 100 Incoming Managed Mail Program
24	AFSM100 In SCF	Automated Flats Sorting Machine 100 Incoming Sectional Center Facility
25	AFSM100 In Primary	Automated Flats Sorting Machine 100 Incoming Primary
26	AFSM100 In Secondary	Automated Flats Sorting Machine 100 Incoming Secondary
27	UFSM1000 HSF Out Primary	Upgraded Multi-Position Flats Sorting Machine 1000 High Speed Feeder Outgoing Primary
28	UFSM1000 HSF Out Secondary	Upgraded Multi-Position Flats Sorting Machine 1000 High Speed Feeder Outgoing Secondary
<u>Group</u>	<u>Description</u>	<u>Expanded Description</u>
29	UFSM1000 HSF In MMP	Upgraded Multi-Position Flats Sorting Machine 1000 High Speed Feeder



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

		Incoming Managed Mail Program
		Upgraded Multi-Position Flats Sorting Machine 1000 High Speed Feeder
30	UFSM1000 HSF In SCF	Incoming Sectional Center Facility
		Upgraded Multi-Position Flats Sorting Machine 1000 High Speed Feeder
31	UFSM1000 HSF In Primary	Incoming Primary
		Upgraded Multi-Position Flats Sorting Machine 1000 High Speed Feeder
32	UFSM1000 HSF In Secondary	Incoming Secondary
		Upgraded Multi-Position Flats Sorting Machine 1000 Keying Outgoing
33	UFSM1000 Key Out Primary	Primary
		Upgraded Multi-Position Flats Sorting Machine 1000 Keying Outgoing
34	UFSM1000 Key Out Secondary	Secondary
		Upgraded Multi-Position Flats Sorting Machine 1000 Keying Incoming
35	UFSM1000 Key In MMP	Managed Mail Program
		Upgraded Multi-Position Flats Sorting Machine 1000 Keying Incoming
36	UFSM1000 Key In SCF	Sectional Center Facility
		Upgraded Multi-Position Flats Sorting Machine 1000 Keying Incoming
37	UFSM1000 Key In Primary	Primary
		Upgraded Multi-Position Flats Sorting Machine 1000 Keying Incoming
38	UFSM1000 Key In Secondary	Secondary
39	Manual Out Primary	Manual Outgoing Primary (Flats)
40	Manual Out Secondary	Manual Outgoing Secondary (Flats)
41	Manual In MMP	Manual Incoming Managed Mail Program (Flats)
42	Manual In SCF	Manual Incoming Sectional Center Facility (Flats)
43	Manual In Primary	Manual Incoming Primary (Flats)
44	Manual In Secondary	Manual Incoming Secondary (Flats)
45	Manual In	Manual Incoming (Flats)
46	SPBS Outgoing	Small Parcel and Bundle Sorter Outgoing
47	SPBS Incoming	Small Parcel and Bundle Sorter Incoming
48	LIPS Outgoing	Linear Integrated Parcel Sorter Outgoing
49	LIPS Incoming	Linear Integrated Parcel Sorter Incoming

Response of United States F      Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

<u>Group</u>	<u>Description</u>	<u>Expanded Description</u>
50	APPS Outgoing	Automated Package Processing System (APPS) Outgoing
51	APPS Incoming	Automated Package Processing System (APPS) Incoming
52	Manual Outgoing	Manual Outgoing (Parcels)

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of United Parcel Service

UPS/USPS-T12-29. Refer to USPS-LR-L-56, dataset Section1\Data\vv9905.xls.  
Provide a mapping of the IDNUM used in your analysis to the facility identifier  
used in the IOCS for FY1999 to FY2005.

Response.

Please see the response to MPA-ANM/USPS-T12-1(g).

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-30. Refer to USPS-T-12, section VII.F, "Alternative Capital Series," pages 100-104.

(a) In Table 27 on page 101 you show that the number of records where using the alternative capital variable results in cases where hours>0 & and Capital=0 are reduced. Explain in detail how the use of the alternative capital measure changes the values of capital measure for the records with non-zero capital measures using the original specification.

(b) Explain in detail why you continue to use for your recommended variabilities the original specification if it produces more cases of mismatches between capital and hours.

Response.

a. The alternative capital series more frequently update the equipment data from PPAM and PEAS than the original method, and thus may pick up the presence of newly deployed equipment sooner, given the limitations of reporting lags in the data systems.

b. I investigated the matter in response to Prof. Roberts's March 2006 paper, which was released after the relevant CRA production deadlines. The alternative capital series would be preferred for future analysis.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-31. Refer to USPS-LR-L-56, section IV, "Data and Programs Pertaining to Roberts Model Update and Related Analysis," page 40.

(a) Explain in detail your understanding of why Roberts did not perform his analysis on parcels?

(b) Do the data provided in section IV permit estimating Roberts model for parcels?

(c) If the answer to (b) is no, provide any additional data elements that would be required to extend the Roberts (2006) analysis to parcels.

(d) Have you performed any analysis on parcels using Roberts methodology or some update to Roberts methodology?

(e) If your response to (d) above is affirmative, provide the estimated variabilities resulting from such an analysis.

Response.

a. I have no particular insight into anything Prof. Roberts may have considered but did not report in his papers.

b.-c. Possibly. The data requirements would depend on which operations not covered by the MODS plant data set (e.g., BMC parcel sorting) were to be included in the model. Since Prof. Roberts has not specified a "parcel" model, it would be speculation on my part as to what operations should be included.

d. No.

e. Not applicable.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-32. Explain why the following MODS activities are not logged by any facility based on the data in the USPS-LR-L-56 dataset

Section1\Data\vv9905.xls:

(a) 19 (Metered); and

(b) 36 (Total Metered and Cancellations).

Response.

My analysis does not include the Meter Prep cost pool, so the Metered Mail Prep data (group 19) are not reported in the USPS-LR-L-56 dataset. Group 36 is an aggregate of the reported group 18 (Cancellations) and group 19. For the aggregate MODS volumes and hours in the Meter Prep operations, please see the response to TW/USPS-T11-1b/c.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-33. Refer to USPS-LR-L-56, file Section1\Programs\BY2005 Programs\varmp\_tpf\_OTHAUTO\_by2005.out, lines 95-104, where you have the comment "Sets TPF = TPH if TPH>TPF, Then replaces the TPH variable with TPF." Explain in detail why you replace TPH with TPF.

Response.

The purpose of this assignment had been to make use of common data transformation and estimation code—based on TPH variable names— for automated operations (where TPF is the MODS piece handling concept employed) and manual operations (where TPH is the MODS piece handling concept employed).

Recall that in earlier incarnations of the analysis (cf. Docket No. R2000-1, USPS-T-15), manual and automated operations employed substantially similar translog estimating equations. The manual programs had been written first, and it was more convenient and less error-prone for the automated operation programs to substitute TPF into the TPH variable rather than to attempt to change every instance of TPH to TPF in the data transformation and estimation loop.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-34. Refer to all tsp programs provided in USPS-LR-L-56, folders Section1\Programs\BY2005 Programs and Section1\Programs\Alternative Runs.

(a) Provide the rationale behind coming up with the numbers that determine implausibly low and high productivities for different cost pools. As a specific case, see varmp\_tpf\_OTHAUTO\_by2005, lines 77-82: high04=15, low04=0.5 for OCR; high06=2, low06=0.15 for FSM1000; and high34=0.725, low34=0.05 for Total SPBS/LIPS.

(b) Have you checked the sensitivity of your results to different selection criteria?

Response.

a. Please see Docket No. R2000-1, USPS-T-15 at 80-82, 101-102, and 110-112.

b. In my analysis for Docket No. R2000-1, I found that eliminating the screens did not qualitatively alter the results. See Docket No. R2000-1, USPS-T-15 at 140. I have not done further sensitivity checks of this screen.



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-35. Refer to USPS-LR-L-56, section I.A.3., "Definition of analysis variables and elasticity functions," pages 5-7, which describes your calculation of elasticities.

- (a) Do your calculations take into account the significance of the coefficients produced from estimation equations before the coefficients are utilized in elasticity calculations?
- (b) If your answer to (a) is yes, explain in detail how this is done, including an explication of the method used and any code used to perform the calculation.
- (c) Have you computed confidence intervals around these estimated variabilities?
- (d) If your answer to (c) is yes, explain in detail how this is done, including an explication of the method used and any code used to perform the calculation.

Response.

- a. The estimated regression coefficients are not pretested in any way prior to being used in the elasticity calculations.
- b. Not applicable.
- c. No, but it would be possible to construct confidence intervals for the elasticities based on the reported standard errors, which take into account the covariance matrix of the estimated coefficients.
- d. Since the elasticity estimates are linear combinations of certain regression coefficients and data, the TSP "analyz" command computes the variance of the linear combination using the covariance matrix of the coefficients, conditional on the data.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-36. Refer to USPS-T-12, section V.C.1., "Delivery Network Data – AIS, ALMS," pages 57-58. For converting monthly delivery network data (AIS, ALMS) to quarterly data, the month closest to the end of the quarter is employed to represent the postal quarter. Why is this preferred over averaging out the three months that makes up a quarter? Explain your reasoning in detail.

Response.

Since the data continue to use the 'old' postal quarters until there is sufficient data available under the government fiscal year calendar, months do not map to quarters as easily as the question suggests. Such time as the data set is converted to the GFY calendar, a midpoint or average value would be straightforward to calculate and may subsequently be employed.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-37. Refer to USPS-T-12, section I.V.D., "Estimating Equation Specifications," page 52, where you define your variable WAGE as "the Relative wage for the LDC associated with cost pool  $i$  versus the LDC 14 wage, for site  $n$ , and time  $t$ " for D/BCS Incoming, D/BCS Outgoing, FSM 1000, OCR, and SPBS cost pools. Refer also to TSP output file "varmp\_tpf\_OTHAUTO\_by2005.out", line 73, where you define the relative wage for cost pool 34 (Total SPBS/LIPS) relative to LDC 17 wage. Explain in detail.

Response.

The testimony at the cited section should have clarified that the manual equivalent to SPBS bundle handling work is carried out in LDC 17, rather than LDC 14 (as is the case for the other listed operations), so the relative wage used for SPBS is that between LDC 13 and LDC 17, as implemented in the TSP code.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-38. A number of sites in the dataset Section1\Data\vv9905.xls from USPS-LR-L-56 seem to have an intermittent presence of various MODS operations. For example, site # 3 has an intermittent presence of SPBS & LIPS Priority (MODS group 10) and of Priority (MODS group 14); and site # 27 has an intermittent presence of Manual Letters (MODS group 12) and of Priority (MODS group 14). Explain in detail why various MODS operations appear only intermittently throughout the dataset.

Response.

The term "intermittent presence" is vague, and limits my ability to comment on the causes of specific instances that the question may intend to encompass.

Note that certain operations, particularly Priority Mail and parcel sorting, may only be present in some facilities at periods such as seasonal peaks.

I am informed that site #3's "intermittent" data in Priority Mail operations correctly reflects its operations.

Regarding site #27, I am informed that its "intermittent" Priority Mail data reflect seasonal operations. Also, given the extremely small number of MODS workhours for manual letters (7 hours over all quarters) and the absence of recorded manual letters TPH, I would conclude that the manual letters operation was not present and that the hours represent very minor clocking noise. Note also that site 27 is a non-plant facility which does not enter the regression samples.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-39. The following sites in the dataset Section1\Data\vv9905.xls from USPS-LR-L-56 have no piece handlings in any of the MODS operations at the start of the 28 periods, but appear with positive piece handlings elsewhere in the dataset: Sites 18, 41, 44, 177, 315, 324-329, 331-347, and 352-368. For each of these sites, explain in detail whether: (a) the site is a new site which came into existence during the time period sampled; (b) the site did not report data into the MODS system; or (c) there is some other explanation for the zero piece handlings across all MODS groups at the start of the sample. If your answer for any site is (c), explain in detail.

Response.

Please note that site 41, contrary to the claim in the interrogatory, reported some piece handlings and hours in PQ1 of FY1999, and did not report any MODS data subsequently; that site is a post office no longer reporting MODS data.

Sites 18, 44, 177, 357, 364, and 365, also contrary to the claim in the interrogatory, report no piece handlings (or other MODS data) in any of the sorting operations in any period. Site ID 18 currently has no facility assigned to it. See Docket No. R2000-1, Tr. 15/6390, for sites 44 and 177. I am informed that site 357 ceased operation prior to FY 1999. I am informed that sites 364 and 365 started operation during the sample period and report MODS data, but are non-plant facilities that do not have the piece sorting operations covered by vv9905.xls.

For other sites, please see the table in the attachment.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

Attachment 1, Response to UPS/USPS-T12-39

Site ID	Explanation
315	Site existed as of PQ1 FY1999, but did not report MODS data
324	Site existed as of PQ1 FY1999, but did not report MODS data
325	Site existed as of PQ1 FY1999, but did not report MODS data
326	Site existed as of PQ1 FY1999, but did not report MODS data
327	Site existed as of PQ1 FY1999, but did not report MODS data
328	Site existed as of PQ1 FY1999, but did not report MODS data
329	Site existed as of PQ1 FY1999, but did not report MODS data
331	New facility
332	New facility
333	New facility
334	New facility
335	New facility
336	New facility
337	New facility
338	New facility
339	New facility
340	New facility
341	New facility
342	New facility
343	New facility
344	New facility
345	Site existed as of PQ1 FY1999, but did not report MODS data
346	New facility
347	New facility
352	New facility
353	New facility
354	New facility
355	New facility
356	New facility
358	New facility
359	Site existed as of PQ1 FY1999, but did not report MODS data
360	Site existed as of PQ1 FY1999, but did not report MODS data
361	New facility
362	Site existed as of PQ1 FY1999, but did not report MODS data
363	Site existed as of PQ1 FY1999, but did not report MODS data
366	New facility
367	New facility
368	New facility

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-40. The following sites in the estimation dataset Section1\Data\vv9905.xls from USPS-LR-L-56 have no piece handlings in any of the MODS operations at the end of the 28 periods: Sites 13, 14, 18, 27, 33, 34, 41, 44, 54, 56, 57, 117, 160, 177, 324, 327, 349, 350, 351, 356, 357, 364, 365, and 368. For each of these sites, explain in detail whether (a) the site closed down its operations; (b) the site did not report data into the MODS system; or (c) there is some other explanation for the zero piece handlings across all MODS groups at the end of the sample. If your answer for any site is (c), explain in detail.

Response.

For sites 18, 41, 44, 177, 357, 364, and 365, please see the response to

UPS/USPS-T12-39.

Contrary to the claim in the interrogatory, site 368 reports piece handlings and other MODS data in PQ4 of FY 2005. As noted in the response to UPS/USPS-T-12-40, this is a new facility.

For other sites, please see the table below.

Site ID	Explanation
13	Post office that stopped reporting data to MODS
14	Post office that stopped reporting data to MODS
33	Post office that stopped reporting data to MODS
34	Post office that stopped reporting data to MODS
54	Post office that stopped reporting data to MODS
56	Post office that stopped reporting data to MODS
57	Post office that stopped reporting data to MODS
117	Post office that stopped reporting data to MODS
160	Post office that stopped reporting data to MODS
324	Post office that stopped reporting data to MODS
327	Post office that stopped reporting data to MODS
349	Post office that stopped reporting data to MODS
350	Facility closed
351	Post office that stopped reporting data to MODS
356	Facility closed

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-41. Refer to USPS-T-12, pages 70-73, Tables 10-13 and USPS-LR-L-56, Section1\Data\vv9905.xls. Identify the records of Section1\Data\vv9905.xls used for the analyses presented in each of the tables by IDNUM and quarter.

Response.

The records may be identified using the following sample selection variables

defined in the estimation code:

- BCS (incoming and outgoing), AFSM, OCR, FSM 1000, SPBS:

F[group]\_not145.

- Manual letters, flats, parcels, Priority, cancellations: F[group]\_not14.

Where [group] is the operation group code used in the TSP programs.



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-42. Refer to USPS-LR-L-56, dataset Section1\Data\vv9905.xls, where site # 40 has only 0.2 FHP in the 1<sup>st</sup> quarter of 2003 for Total FSM (MODS group 33) and no other recorded activity for that MODS group in the 28 periods in the dataset. Explain in detail.

Response.

Site 40 has no FSM equipment, so the FHP entry appears to be the result of a trivial (200 piece) error in an FHP transaction.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-43. Refer to USPS-LR-L-56, dataset Section1\Data\vv9905.xls, where site # 324 and site # 327 have recorded activity (i.e., HRS, TPH, TPF, or FHP) between the 3<sup>rd</sup> quarter of 1999 and 1<sup>st</sup> quarter of 2000, and between the 1<sup>st</sup> quarter of 2000 and the 3<sup>rd</sup> quarter of 2003 respectively, with no other recorded activity for the 28 periods in the dataset. Explain in detail.

Response.

Please see the responses to UPS/USPS-T12-39-40.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-44. Refer to USPS-LR-L-56, dataset Section1\Data\vv9905.xls, where site # 356 has only 1 FHP in the 4<sup>th</sup> quarter of 2001 for AFSM 100 and AFSM INCOMING (MODS group 39 and 93 respectively) and only 8 HRS in the 3<sup>rd</sup> quarter of 2003 for MPBCS and MPBCS OUTGOING (MODS group 1 and 72 respectively), and no other recorded activity for those MODS groups in the 28 periods in the dataset. Explain in detail.

Response.

Site 356 has neither AFSM nor MPBCS equipment; the observations indicated appear to be the result of trivial clocking and FHP transaction errors. Note also that site 356 is a non-plant facility that does not appear in the regression samples.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-45. Refer to USPS-T-12, page 52, lines 14-15.

- (a) Explain in detail why you employ relative wages rather than using the operation specific LDC wages.
- (b) Explain in detail how your WAGE variable accounts for differences in cost over time due to inflation.

Response.

- a. Please see Docket No. R2005-1, USPS-T-12 at 30-32 (Section II.B.6).
- b. The wage variables are not intended to account for effects of wage inflation.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12)  
To Interrogatories of United Parcel Service

UPS/USPS-T12-46. Refer to USPS-T-12, page 54, line 14-15, where you state that "the estimation procedure does not adjust for serially correlated errors." Explain in detail any potential consequences of not adjusting for serially correlated errors in your analysis.

Response.

Statistical consistency of the instrumental variables (IV) estimates is unaffected, but the covariance matrix of the estimates may be incorrect. In the presence of serial correlation, a generalized instrumental variables estimator such as generalized two-stage least squares can be shown to be asymptotically efficient, though efficiency improvements are not guaranteed in finite samples. See, e.g., Russell Davidson and James G. MacKinnon, *Estimation and Inference in Econometrics*, Oxford University Press 1993, p. 369-371.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-1. Please refer to your testimony at page 1, lines 3-8, wherein you state that "[t]he purpose of this testimony is to present the econometric estimate of volume-variability factors ... for a group of 'Function 1' mail processing labor cost pools representing letter, flat, bundle, and parcel sorting operations at facilities that report data to the Management Operating Data System (MODS)."

- a. For all cost pools included in your database, please identify each cost pool in which bundles of letters only are sorted.
- b. For all cost pools included in your database, please identify each cost pool in which bundles of flats only are sorted.
- c. For all cost pools included in your database, please identify each cost pool in which bundles of both flats and letters are sorted.

Response.

- a. None of the cost pools covered by my econometric analysis only sort letter bundles.
- b.-c. Flat bundles are sorted in the SPBS cost pool group. The SPBS operations also are used to sort non-bundled mailpieces. Except for Cancellation, the remaining cost pools analyzed are piece sorting operations.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-2.

- a. Please refer to your testimony at page 3, Table 1. Do the MODS cost pools shown in Table 1 represent a comprehensive listing of all cost pools used in your study? If not, please provide a complete list of all other cost pools that you analyzed.
- b. Please explain whether the 11 cost pools (including "Composite") in Table 1 were analyzed at the level of detail shown, or whether the cost pools were analyzed in a finer level of detail and then aggregated to the level of detail shown in Table 1 (aside from the disaggregation into outgoing and incoming cost pools for D/BCS and AFSM discussed at pages 6-7 of your testimony).
- c. If the cost pools shown in Table 1 were analyzed at a finer level of detail and then aggregated as shown in Table 1, please indicate all the components within each cost pool that were subjected to separate analysis.

Response.

- a. Yes.
- b. Apart from the D/BCS and AFSM cost pools, the cost pools shown in Table 1 represent the level of aggregation of MODS operations used in the results of the econometric analysis that I recommend for use in the BY 2005 CRA.
- c. Not applicable.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-3. Please refer to your testimony at page 3, Table 1.

- a. For the OCR cost pool, please: (i) indicate each type of mail by shape (i.e., letters, flats, parcels) that is handled in the OCR cost pool; and (ii) indicate the percentage of each type or shape of mail processed in the OCR cost pool.
- b. For the Cancellation cost pool, please: (i) indicate each type of mail by shape (i.e., letters, flats, parcels) that is handled in the Cancellation cost pool; (ii) indicate the percentage of each type processed in the Cancellation cost pool; and (iii) explain briefly what activities are performed in the Cancellation cost pool.
- c. For the 11 cost pools shown in Table 1, please indicate each one that involves sorting of bundles.
- d. If mail processing cost for sorting bundles is incurred in any cost pool other than the cost pools shown in Table 1, please indicate each any every other cost pool where mail processing costs for such bundle sortation are incurred.

Response.

- a. The MLOCR equipment used in the OCR cost pool processes card- and letter-shape pieces. The OCR cost pool primarily handles letters that are not prebarcoded and not processed on AFCS equipment with image lift capabilities. Please see USPS-T-12 at 15; USPS-T-42 at 4-5. My understanding is that the OCR cost pool also is used, to a much lesser extent, to apply correct barcodes to some pieces to which incorrect or unreadable barcodes previously had been applied either by the mailer or by Postal Service equipment.
- b. Please see witness McCrery's response to VP/USPS-T42-7.
- c. Please see the response to VP/USPS-T12-1.
- d. My understanding is that bundle sorting occurs in several cost pools in addition to those covered by my econometric analysis: the MODS opening unit and pouching cost pools (1OPPREF, 1OPBULK, 1POUCHNG), the BMC SPB and OTH cost pools, and the non-MODS (Post Office/Station/Branch) Allied cost pool.



Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-4. Table 1 at page 3 of your testimony indicates that the volume variability of all MODS mail processing cost pools except AFSM 100 is somewhat less than one. The fact that you recommend use of these volume variabilities seemingly would indicate your belief that these results are statistically significant.

- a. On the basis of this study, is it your assertion that mail processing is subject to economies of scale? Please explain the basis for your answer.
- b. Do you conclude from your study that the Postal Service's unit cost of sorting letters in large facilities is less than the unit volume variable labor mail processing cost of sorting letters in smaller facilities? If so, please explain the basis for your conclusion.

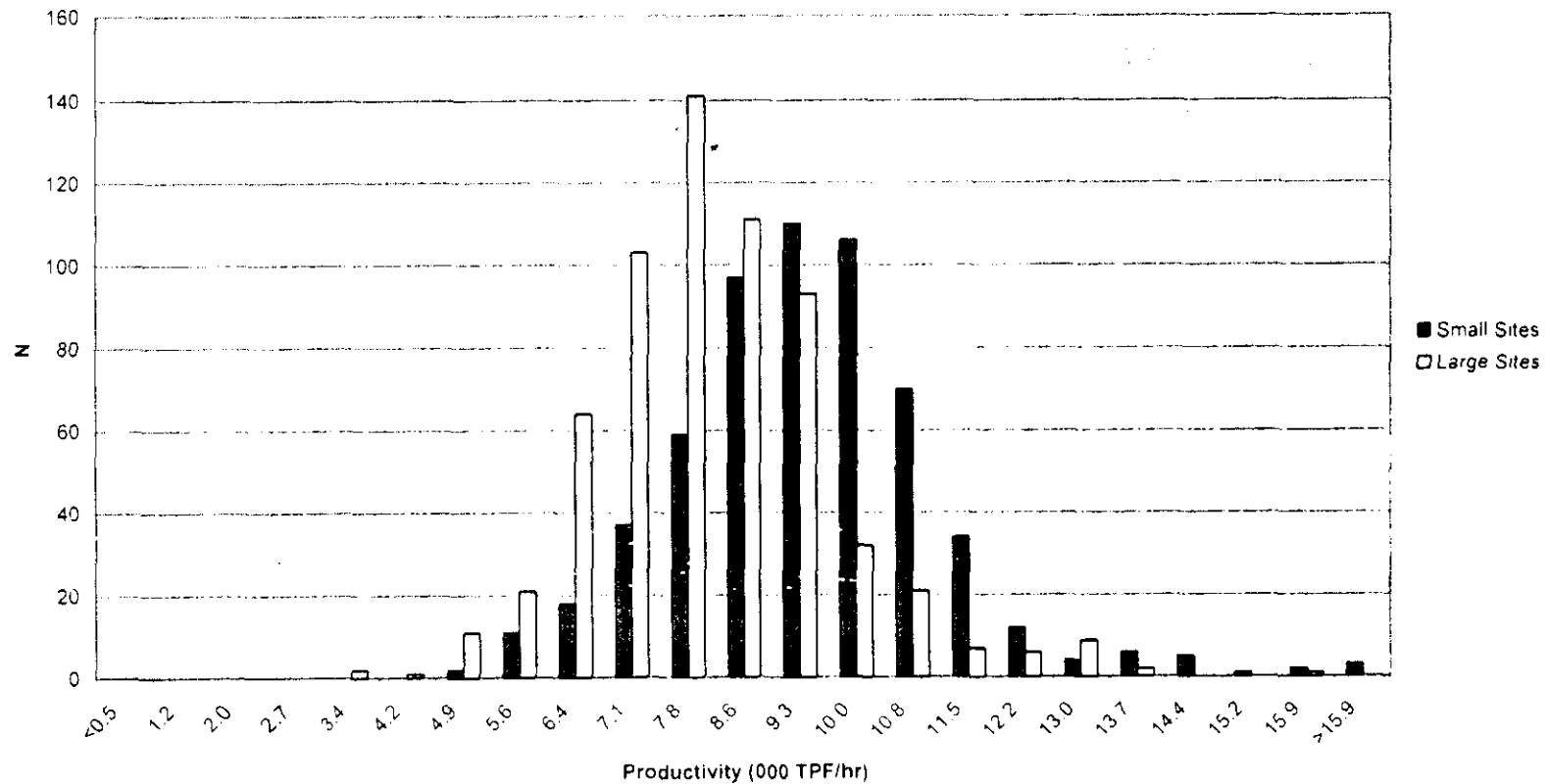
Response.

- a. Not exactly. My results imply that there are, in most cases, economies of "density" in the mail processing operations I analyzed. See, e.g., D. Caves, L. Christensen, M. Tretheway, "Economies of Density Versus Economies of Scale: Why Trunk and Local Service Airlines Differ," *Rand Journal of Economics*, Winter 1984, for additional discussion of the distinction. Please see also Docket No. R2000-1, USPS-T-15 at 47-49; 64-65.
- b. Not in general. It is a stylized fact that mail processing operations at "large" facilities have lower productivities, on average, than similar operations at "small" facilities. However, there is sufficient within-group productivity variation that there are "large" facilities with higher productivity operations than most "small" facilities. See, for instance, the histogram of D/BCS productivities provided as Attachment 1 to this response, where "small" sites are defined as having below-median delivery points prior to data screening. The demonstrated existence of significant facility-specific cost-causing factors implies that the productivity variations are due in large part to factors other than volumes (workloads).

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers' Association, Inc.

Attachment 1, Response to VP/USPS-T12-4(b)

Incoming D/BCS Productivity Distributions, FY2005 Quarterly Data, by Small and Large Sites  
(Source: USPS-LR-L-56, vv9905.xls)



Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-5.

- a. Does your model contain any variable (or variables) that indicates facility size, and that might enable analysis of how unit volume variable labor mail processing cost varies with facility size, either by cost pool or in aggregate?
- b. If your answer to preceding part a is affirmative, please indicate each such variable, and then, regardless of whether you actually have done any such analysis, explain what insight could be enabled with respect to how unit volume variable labor cost for mail processing operations varies with facility size.

Response.

- a. Yes.
- b. My models contain two variables (in addition to piece handlings) that may be viewed as indicators of facility size: delivery points in the facility's service territory (DPT) and a capital input measure (QIAHE or QIMHE, depending on the cost pool). Variables such as these might, in principle, be used to determine the extent to which average productivities and output elasticities—both are needed to investigate how facility size might affect marginal productivities and hence unit volume-variable (marginal) costs—vary by facility size, for instance by creating subsample groups by facility size.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-6.

a. During the course of your study, did you make any attempt to develop the volume variability of mail processing costs for facilities of different sizes, either by cost pool or in aggregate?

b. On the basis of your study of the volume variability of mail processing costs, are you able to make any determination, or derive any inference, as to whether volume variability of mail processing costs, or individual cost pools, differs as between smaller and larger facilities? If so, please state how volume variability differs by facility size, and explain the basis for your statements.

Response.

- a. No, the purpose of my analysis was to estimate systemwide elasticities applicable to entire mail processing cost pools.
- b. The translog models I recommend for automated sorting operations include higher-order terms (squared TPF or TPH and interactions between TPF or TPH and other variables), the effect of which is that the translog-based volume-variability factors (output elasticities) depend on the variables mentioned in the response to VP/USPS-T12-5(b). The detailed econometric output in USPS-LR-L-56 shows the coefficients on those terms to be small, which implies that variabilities generally should not differ greatly between large and small facility groups.

*Intuitively*, a plant serving 750,000 delivery points will have many more scheme changes than a plant serving 150,000 delivery points, and the former plant will also tend to have greater sorting volumes. As a result, the two plants may not differ very much in the extent to which non-volume-variable scheme change costs are spread over their volumes. Consequently, both sizes of plants may have similar

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

opportunities to achieve economies of density—e.g., by processing more mail to their respective (existing) delivery networks.

Response of United States Postal Service Witness A. Thomas Bozzo  
To Interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers'  
Association, Inc.

VP/USPS-T12-7. Please refer to your testimony in Docket No. R2005-1 (USPS-T-12), page 9, lines 12-15, where you state that "the utility of employing the factor demand function approach, as opposed to directly estimating the cost function, is that ... labor cost is not available at the cost pool level."

- a. Is labor cost available at the facility level?
- b. If your response to preceding part a is affirmative, to what extent is labor cost at the facility level available in sufficient detail to study unit mail processing cost by size of facility?
- c. Could study of such costs be a useful way to develop insights or inferences concerning whether postal facilities do in fact exhibit economies of scale?

Response.

- a. Yes.
- b. Labor cost (as opposed to workhour) data are not available at appropriate levels of operational detail. The finest levels at which labor cost data are available—Labor Distribution Codes, or LDCs—involve the aggregation of operations, including operations from different shape-based mailstreams in certain LDCs, that should be separated for analytical purposes.
- c. While an analysis of the available facility-level labor cost data cannot be said to be "useless," such an analysis would conceptually be of no greater utility than an analysis based on workhour data.

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

VP/USPS-T12-8. Please refer to your response to VP/USPS-T12-4.

- a. With respect to the economies of "density" in mail processing operations that you analyzed, what effort did you make to ascertain whether such economies vary with respect to plant size?
- b. Allowing for the existence of significant facility-specific cost-causing factors that are unrelated to economies of scale, economies of scope, or economies of density (as you discuss in your response to VP/USPS-T12-4(b)), do the economies of density in the mail processing operations which you analyzed increase uniformly with plant size? Please explain why you would or would not expect that to be the case.

Response.

- a.-b. As I indicated in response to VP/USPS-T12-6(b), I inspected the coefficients of the translog labor demand models to determine that the models imply that "variabilities generally should not differ greatly between large and small facility groups."

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

VP/USPS-T12-9. a. For the facilities and cost pools included in your study of volume variability, did you collect any data similar to those presented in Docket No. R2001-1, USPST-39, by witness Kingsley at page 31, lines 1-2? That is, for some or all of the individual facilities included in your study, do you have data on (i) the number of AFSM 100s and BC/S/DBCSs in each facility, (ii) the average run time per machine, (iii) the average number of sort plan changes per machine, and (iv) the average time to change sort plans? If so, please provide or indicate where those data can be found, or how they can be extracted from the data contained in USPS-LR-L-56.

b. With respect to a comparison of automated mail processing in smaller facilities with only a few sorting machines versus larger facilities with greater volume and more sorting machines, please cite all evidence of which you are aware showing that larger facilities with more volume and more machines have either (i) fewer scheme changes, or (ii) longer average run times between scheme changes, or (iii) both fewer scheme changes and longer run times.

Response.

a. No. However, a purpose of the IOCS data analysis presented in USPS-T-12, Table 2

(p. 27) is to provide system-wide information on the proportions of time spent in

scheme changes presented for two facilities by witness Kingsley.

b. I am not aware of such evidence. Please see also witness McCrery's response to

VP/USPS-T42-21(d).



Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

VP/USPS-T12-10. In Docket No. R2001-1, witness Kingsley (USPS-T-39) testified that "subject to practical requirements such as transportation costs and the need to make the best use of our existing space, **we prefer larger plants.**" USPS-T-39, p. 29, ll. 10-12 (emphasis added). In your response to VP/USPS-T12-4, you discuss economies of "density" in the mail processing cost pools that you analyzed.

- a. Do the economies of "density" implied by your results support a preference for larger plants as expressed by witness Kingsley? If so, please discuss, and explain the logical connection for such support.
- b. Aside from economies of "density," does your study in any other way support the conclusion that larger plants are more economical, or more desirable, than smaller plants? If so, please explain.

Response.

- a. The presence of economies of "density" implies that marginal costs in the operations are lower than average costs. So, other things equal, increased volume will reduce the average costs of operations, as non-volume-variable costs are spread over greater volumes.
- b. My study suggests that any potential labor cost diseconomies from adding additional equipment to operations would be small—elasticities of labor input with respect to capital are small (see USPS-T-12 at 81). With respect to large plants defined in terms of the delivery network served, the econometric results provide mixed evidence as to the presence of economies of "scale" (i.e., less than unit elasticities with respect to volume and the network). The deliveries elasticities are, for the most part, not estimated with sufficient precision to reject a hypothesis of constant returns to scale—as opposed to unit volume-variability, which is soundly rejected—in the operations I study econometrically. It should be noted that many of the activities I discuss in USPS-T-12, section II.F, would not be very sensitive to the extent of the delivery network, suggesting possible economies from consolidation. See, for instance, the

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
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hypothetical scenario from your interrogatory VP/USPS-T12-15. These imply that facilities with larger delivery networks will at least not tend to be less desirable, other things equal; there do not appear to be diseconomies caused by size in the operations I study that would outweigh economies from other operations and/or other cost segments.

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

VP/USPS-T12-11. For your response to the following questions, please assume that a DBCS is processing First-Class letters on a particular sort scheme.

- a. If, during the same shift, the volume of First-Class letters to be processed on that sort scheme were to increase, would you expect any increase in either the set up and takedown time on account of that change in volume? Please explain.
- b. Would you consider the setup and takedown time for that particular sortation on the DBCS to be incremental to the cost of sorting First-Class Mail. Please explain the basis for your answer.

Response.

- a. I would not normally expect an increase in setup or takedown time in the indicated scenario (or a decrease, in the case that volume declined). This assumes that the total volume can be processed on the machine within the available processing window.  
  
Note that it is possible, though in practice unlikely, that a small increase in volume on the margin could require the scheme to be run in parallel on an additional machine; this is why I consider the activity likely to exhibit "low" (rather than zero) volume variability in USPS-T-12 at p. 31, line 6. In the absence of large system-wide volume increases, volumes would not tend to drive any substantial net increase in setup or takedown time.
- b. If the sort scheme solely processed First-Class Mail, then the setup and takedown time could be considered incremental to the class in the sense that the associated cost could be avoided if the First-Class Mail service were no longer provided. However, if mail other than First-Class mail were processed in the scheme, the setup and takedown time *would not be incremental to First-Class Mail*.

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

VP/USPS-T12-12. Please refer to Docket No. R2005-1 and your response to ABA&NAPM/USPS-T21-1 (redirected from witness Abdirahman).

- a. Please provide an updated table corresponding to that which you produced in response to the above-cited interrogatory.
- b. Please indicate whether the cost data shown in the table correspond to total accrued cost or volume variable cost.
- c. Please provide a cross-walk showing the correspondence between the activities in the table provided in response to preceding part a and the cost pools shown in Table 1 of your testimony (USPS-T-12, p. 3).
- d. For the activities that comprise your cost pools, do the volume variable costs (or the accrued costs) of the activities sum to the volume variable costs of the entire cost pool? If not, please explain why not.
- e. Does the Postal Service have data that would enable the cost for the various activities shown in the table provided in response to part a to be distributed to the classes and subclasses of mail?

Response.

- a. The updated table is provided as Attachment 1 to this response.
- b. As indicated in the response to ABA&NAPM/USPS-T21-1 (Docket No. R2005-1, Tr. 5/1422), the costs are witness Van-Ty-Smith's cost pool dollars split based on MODS workhours—i.e., "accrued" cost.
- c. The table provided as Attachment 1 to this response indicates the cost pool for each listed operation.
- d. The costs of the operations listed in Attachment 1 do not sum to the costs for the associated cost pools. The operations from ABA&NAPM/USPS-T21-1 constitute a subset of the operations mapped to the relevant cost pools that are employed in the letter-shape mailflow models.
- e. It is technically possible to assign most IOCS tallies associated with the MODS cost pools to more finely disaggregated cost pools, using the MODS operation number recorded during the IOCS reading or, possibly, other IOCS activity data. However, it

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

cannot be assumed that there exists sufficient and sufficiently reliable IOCS sample data for an arbitrary disaggregation of MODS operations; nor is it necessarily possible to obtain reliable volume-variability factors at an arbitrary level of operational disaggregation. Accordingly, I believe data limitations would make it inadvisable, if not impossible, to separately distribute volume-variable costs to classes and/or subclasses for at least some of the listed operations.

Response of United States Postal Service Witness Anthony Bozzo (USPS-T-12) To Interrogatories of Valpak Direct  
Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

Attachment 1, Response to  
VP/USPS-T12-12  
MODS Productivity, LDCs, and Cost by  
Operation

<u>Group</u>	<u>Group Name</u>	<u>Op.</u>	<u>Operation Name</u>	<u>TPF/Hour</u>	<u>LDC</u>	<u>Cost Pool</u>	<u>Cost (\$000)</u>
02	Incoming ISS	284	DBCS/DIOSS ISS INCOMING SCF PRIMARY	8,780	11	DBCS/Inc	426.7
02	Incoming ISS	285	DBCS/DIOSS ISS INCOMING PRIMARY	4,991	11	DBCS/Inc	112.1
02	Incoming ISS	286	DBCS/DIOSS ISS INCOMING SECONDARY	1,057	11	DBCS/Inc	83.3
02	Incoming ISS	287	DBCS/DIOSS ISS BOX SECTION	1,525	11	DBCS/Inc	31.8
06	Incoming OSS	273	DBCS/DIOSS OSS MANAGED MAIL	6,027	11	DBCS/Inc	2,211.7
06	Incoming OSS	274	DBCS/DIOSS OSS INCOMING SCF PRIMARY	15,162	11	DBCS/Inc	1,130.2
06	Incoming OSS	275	DBCS/DIOSS OSS INCOMING PRIMARY	13,586	11	DBCS/Inc	398.6
06	Incoming OSS	276	DBCS/DIOSS OSS INCOMING SECONDARY	10,897	11	DBCS/Inc	204.8
06	Incoming OSS	277	DBCS/DIOSS OSS BOX SECTION	2,219	11	DBCS/Inc	1.4
06	Incoming OSS	278	DBCS/DIOSS OSS SEC/SEGMENT 1ST PASS	134,400	11	DBCS/Inc	0.4
06	Incoming OSS	505	DIOSS EC-OSS BULKY MODE - I/C PRIMA	0	11	DBCS/Inc	152.1
06	Incoming OSS	506	DIOSS EC-OSS BULKY MODE - I/C SECND	0	11	DBCS/Inc	20.7
06	Incoming OSS	974	BCS-OSS-INCOMING SCF	7,944	11	DBCS/Inc	1,728.5
06	Incoming OSS	975	BCS-OSS-INCOMING PRIMARY	8,058	11	DBCS/Inc	867.4
06	Incoming OSS	976	BCS-OSS-INCOMING SECONDARY	9,506	11	DBCS/Inc	826.5
06	incoming OSS	977	BCS-OSS-BOX SECTION	4,408	11	DBCS/Inc	22.0
06	Incoming OSS	978	BCS-OSS SECTOR/SEGMENT 1ST PASS	0	11	DBCS/Inc	10.3
06	Incoming OSS	979	BCS-OSS SECTOR/SEGMENT 2ND PASS	0	11	DBCS/Inc	0.8
10	In BCS SCF/Primary	484	DBCS-EC EC MODE-INCOMING SCF PRIMAR	2,294	11	DBCS/Inc	525.4
10	In BCS SCF/Primary	485	DBCS-EC EC MODE-INCOMING PRIMARY	1,731	11	DBCS/Inc	24.2
10	In BCS SCF/Primary	854	MPBCS CHUNKY MOD-INCOMING SCF PRIM	10,950	11	DBCS/Inc	62.9
10	In BCS SCF/Primary	855	MPBCS CHUNKY MOD-INCOMING PRIMARY	26,900	11	DBCS/Inc	0.5
10	In BCS SCF/Primary	864	BCS ON OCR-INCOMING SCF	7,236	11	DBCS/Inc	1,340.2
10	In BCS SCF/Primary	865	BCS ON OCR-INCOMING PRIMARY	9,764	11	DBCS/Inc	1,502.9
10	In BCS SCF/Primary	874	MPBCS-INCOMING SCF	6,619	11	DBCS/Inc	42,294.3
10	In BCS SCF/Primary	875	MPBCS-INCOMING PRIMARY	8,154	11	DBCS/Inc	12,501.9
10	In BCS SCF/Primary	894	DBCS/DIOSS BCS INCOMING SCF PRIM	6,839	11	DBCS/Inc	132,058.5
10	In BCS SCF/Primary	895	DBCS/DIOSS BCS INCOMING PRIMARY	7,343	11	DBCS/Inc	53,171.9

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To Interrogatories of Valpak Direct  
Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

11	In BCS Secondary (1 Pass)	486	DBCS-EC EC MODE-INCOMING SECONDARY	96,523	11	DBCS/Inc	6.3
							<u>Cost</u>
<u>Group</u>	<u>Group Name</u>	<u>Op.</u>	<u>Operation Name</u>	<u>TPF/Hour</u>	<u>LDC</u>	<u>Cost Pool</u>	<u>(\$000)</u>
			MPBCS CHUNKY MOD-INCOMING				
11	In BCS Secondary (1 Pass)	856	SECONDARY	2,200	11	DBCS/Inc	0.2
11	In BCS Secondary (1 Pass)	866	BCS ON OCR-INCOMING SECONDARY	7,141	11	DBCS/Inc	3,385.2
11	In BCS Secondary (1 Pass)	867	BCS ON OCR-BOX SECTION	31,005	11	DBCS/Inc	26.7
11	In BCS Secondary (1 Pass)	876	MPBCS-INCOMING SECONDARY	6,460	11	DBCS/Inc	26,003.7
11	In BCS Secondary (1 Pass)	877	MPBCS-BOX SECTION	9,936	11	DBCS/Inc	1,539.0
11	In BCS Secondary (1 Pass)	896	DBCS/DIOSS BCS I/C SECONDARY	7,095	11	DBCS/Inc	70,562.5
11	In BCS Secondary (1 Pass)	897	DBCS/DIOSS BCS BOX SECTION	12,523	11	DBCS/Inc	9,583.3
11	In BCS Secondary (1 Pass)	909	CSBCS-INCOMING SECONDARY	23,921	11	DBCS/Inc	10.7
11	In BCS Secondary (1 Pass)	910	CSBCS-BOX MAIL	3,286	11	DBCS/Inc	1.4
12	In BCS Secondary (2 Pass)	868	BCS ON OCR-SECTOR/SEGMENT 1ST PASS	47,511	11	DBCS/Inc	0.3
12	In BCS Secondary (2 Pass)	869	BCS ON OCR-SECTOR/SEGMENT 2ND PASS	1,748	11	DBCS/Inc	7.6
12	In BCS Secondary (2 Pass)	878	MPBCS-SECTOR/SEGMENT 1ST PASS	10,817	11	DBCS/Inc	1,540.8
12	In BCS Secondary (2 Pass)	879	MPBCS-SECTOR/SEGMENT 2ND PASS	17,768	11	DBCS/Inc	680.7
12	In BCS Secondary (2 Pass)	898	DBCS/DIOSS BCS SECT/SEGM 1ST PASS	8,403	11	DBCS/Inc	5,877.5
12	In BCS Secondary (2 Pass)	899	DBCS/DIOSS BCS SECT/SEGM 2ND PASS	14,322	11	DBCS/Inc	1,961.6
12	In BCS Secondary (2 Pass)	908	CSBCS-SECTOR/SEGMENT	4,346	11	DBCS/Inc	22.3
12	In BCS Secondary (2 Pass)	914	MPBCS-DELIV POINT SEQ 1ST PASS	9,676	11	DBCS/Inc	1,737.1
12	In BCS Secondary (2 Pass)	915	MPBCS-DELIV POINT SEQ 2ND PASS	16,933	11	DBCS/Inc	679.4
12	In BCS Secondary (2 Pass)	916	BCS-OSS-DELIV POINT SEQ 1ST PASS	21,440	11	DBCS/Inc	28.4
12	In BCS Secondary (2 Pass)	917	BCS-OSS DELIV POINT SEQ 2ND PASS	21,468	11	DBCS/Inc	29.2
12	In BCS Secondary (2 Pass)	918	DBCS/DIOSS BCS DPS, 1ST PASS	6,297	11	DBCS/Inc	553,753.2
12	In BCS Secondary (2 Pass)	919	DBCS/DIOSS BCS DPS, 2ND PASS	19,414	11	DBCS/Inc	159,768.9
12	In BCS Secondary (2 Pass)	925	DBCS/DIOSS-OSS-DELIV P SEQ 1ST PASS	1,711	11	DBCS/Inc	682.1
12	In BCS Secondary (2 Pass)	926	DBCS/DIOSS-OSS-DELIV P SEQ 2ND PASS	14,139	11	DBCS/Inc	77.8
13	In BCS Secondary (3 Pass)	911	CSBCS-DELIVERY POINT SEQUENCE (DPS)	14,649	11	DBCS/Inc	329.6
01	Outgoing ISS	281	DBCS/DIOSS ISS OUTGOING PRIMARY	7,882	11	DBCS/Out	15,182.8
01	Outgoing ISS	282	DBCS/DIOSS ISS OUTGOING SECONDARY	121,007	11	DBCS/Out	8.2
01	Outgoing ISS	491	DIOSS EC-ISS BULKY MODE - O/G PRIMA	0	11	DBCS/Out	6.3
02	Incoming ISS	283	DBCS/DIOSS ISS MANAGED MAIL	5,830	11	DBCS/Out	609.5
05	Outgoing OSS	091	CIOSS TRS IMAGE LIFT MODE	6,632	11	DBCS/Out	2,163.5
05	Outgoing OSS	092	CIOSS TERNATIONAL OUTBOUND	7,492	11	DBCS/Out	1,303.9
05	Outgoing OSS	093	CIOSS FORWARD IMAGE LIFT MODE	6,925	11	DBCS/Out	2,473.0
05	Outgoing OSS	094	CIOSS REVERSE SIDE SCAN	5,326	11	DBCS/Out	307.4

Response of United States Postal Service Witness Anthony Bozzo (USPS-T-12) To Interrogatories of Valpak Direct  
Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

05	Outgoing OSS	095	CIOSS RESCAN	4,901	11	DBCS/Out	120.1
							<u>Cost</u>
<u>Group</u>	<u>Group Name</u>	<u>Op.</u>	<u>Operation Name</u>	<u>TPF/Hour</u>	<u>LDC</u>	<u>Cost Pool</u>	<u>(\$000)</u>
05	Outgoing OSS	096	CIOSS OTHER MODE	6,407	11	DBCS/Out	240.4
05	Outgoing OSS	097	CIOSS INTRCEPT IMAGE LIFT MODE	6,365	11	DBCS/Out	1,383.2
05	Outgoing OSS	098	CIOSS FWDS LABEL MODE	7,037	11	DBCS/Out	2,374.5
05	Outgoing OSS	099	CIOSS RTS LABEL MODE	6,174	11	DBCS/Out	2,645.0
05	Outgoing OSS	261	DBCS/DIOSS OCR O/G PRIMARY	5,145	11	DBCS/Out	2,323.3
05	Outgoing OSS	262	DBCS/DIOSS OCR O/G SECONDARY	86,929	11	DBCS/Out	7.2
05	Outgoing OSS	271	DBCS/DIOSS OSS OUTGOING PRIMARY	9,839	11	DBCS/Out	75,000.0
05	Outgoing OSS	272	DBCS/DIOSS OSS OUTGOING SECONDARY	11,890	11	DBCS/Out	1,639.1
05	Outgoing OSS	971	BCS-OSS-OUTGOING PRIMARY	8,825	11	DBCS/Out	9,534.3
05	Outgoing OSS	972	BCS-OSS-OUTGOING SECONDARY	3,908	11	DBCS/Out	837.8
06	Incoming OSS	973	BCS-OSS-MANAGED MAIL	7,326	11	DBCS/Out	1,549.2
07	Out BCS Primary	291	DIOSS EC/DBCS BULKY MODE - O/G PRIM	310	11	DBCS/Out	0.4
07	Out BCS Primary	292	DIOSS EC/DBCS BULKY MODE - O/G SEC	0	11	DBCS/Out	0.1
07	Out BCS Primary	481	DBCS-EC EC MODE-OUTGOING PRIMARY	4,997	11	DBCS/Out	694.9
07	Out BCS Primary	851	MPBCS CHUNKY MOD-OUTGOING PRIMARY	2,175	11	DBCS/Out	190.3
07	Out BCS Primary	861	BCS ON OCR-OUTGOING PRIMARY	3,756	11	DBCS/Out	20.6
07	Out BCS Primary	871	MPBCS-OUTGOING PRIMARY	4,830	11	DBCS/Out	1,612.1
07	Out BCS Primary	891	DBCS/DIOSS BCS OUTGOING PRIMARY	8,506	11	DBCS/Out	58,497.4
08	Out BCS Secondary	482	DBCS-EC EC MODE-OUTGOING SECONDARY	24,091	11	DBCS/Out	9.1
			MPBCS CHUNKY MOD-OUTGOING				
08	Out BCS Secondary	852	SECONDARY	1,456	11	DBCS/Out	12.9
08	Out BCS Secondary	862	BCS ON OCR-OUTGOING SECONDARY	13,567	11	DBCS/Out	64.9
08	Out BCS Secondary	872	MPBCS-OUTGOING SECONDARY	7,723	11	DBCS/Out	4,208.2
08	Out BCS Secondary	892	DBCS/DIOSS BCS OUTGOING SECONDARY	9,136	11	DBCS/Out	33,372.7
09	In BCS MMP	483	DBCS-EC EC MODE-MANAGED MAIL	4,124	11	DBCS/Out	193.3
09	In BCS MMP	853	MPBCS CHUNKY MOD-MANAGED MAIL	117	11	DBCS/Out	0.5
09	In BCS MMP	863	BCS ON OCR-MANAGED MAIL	7,142	11	DBCS/Out	384.2
09	In BCS MMP	873	MPBCS-MANAGED MAIL	7,377	11	DBCS/Out	18,786.0
09	In BCS MMP	893	DBCS/DIOSS BCS MANAGED MAIL	6,730	11	DBCS/Out	150,021.0
01	Outgoing ISS	881	MLOCR-ISS-OUTGOING PRIMARY	6,530	11	OCR	81,958.5
01	Outgoing ISS	882	MLOCR-ISS-OUTGOING SECONDARY	6,868	11	OCR	210.5
02	Incoming ISS	883	MLOCR-ISS-MANAGED MAIL	3,517	11	OCR	22,133.7
02	Incoming ISS	884	MLOCR-ISS-INCOMING SCF	5,393	11	OCR	16,262.3
02	Incoming ISS	885	MLOCR-ISS-INCOMING PRIMARY	4,505	11	OCR	7,252.2



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Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To Interrogatories of Valpak Marketing Systems, Inc., and Valpak Dealers' Association, Inc.

Group	Group Name	Op.	Operation Name	TPF/Hour	LDC	Cost Pool	Cost (\$000)
02	Incoming ISS	886	MLOCR-ISS-INCOMING SECONDARY	5,412	11	OCR	101.2
02	Incoming ISS	887	MLOCR-ISS-BOX SECTION	1	11	OCR	237.2
05	Outgoing OSS	961	DIOSS BULKY OCR MODE - O/G PRI	0	11	OCR	0.1
14	Manual Out Primary	030	MANUAL LTR-OUTGOING PRIMARY	400	14	MANL	326,440.6
15	Manual Out Secondary	040	MANUAL LTR-OUTGOING SECONDARY	636	14	MANL	51,085.9
16	Manual In MMP	043	MANUAL LTR-STATE DISTRIBUTION	535	14	MANL	88,442.9
16	Manual In MMP	045	MANUAL LTR-BULK BUSINESS	811	14	MANL	14,057.1
17	Manual In SCF/Primary	044	MANUAL LTR-SCF DISTRIBUTION	675	14	MANL	130,146.4
17	Manual In SCF/Primary	150	MANUAL LTR-INCOMING PRIMARY	523	14	MANL	82,692.4
18	Manual In Secondary	160	MANUAL LTR-INCOMING SECONDARY	667	14	MANL	118,166.5
18	Manual In Secondary	168	MANUAL LTR-PRIMARY BOX	361	14	MANL	58,841.3
18	Manual In Secondary	169	MANUAL LTR-SECONDARY BOX	541	14	MANL	42,044.5
19	Rifle Letters	029	RIFLE LETTER MAIL	2,866	14	MANL	4,729.9
03	REC Mixed-Shape Keying	775	RBCS KEYING	787	15	LD15 OTH	98,562.8
04	LMLM	776	LETTER MAIL LABELING MACHINE	3,115	15	LD15 OTH	11,818.5

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
Interrogatories of Valpak Direct Marketing Systems, Inc.,  
and Valpak Dealers' Association, Inc.

VP/USPS-T12-13. Please refer to USPS-LR-L-1, Appendix I, page I-5. The table on that page classifies the relationship between volume variable costs and incremental costs into eight different types. The defining characteristics in two of those cost pools (type 6 and type 8) are that they have (i) a volume variability less than 1, and (ii) more than one product. As between type 6 and type 8, the differentiating factor is whether any of the non-volume variable costs can be classified as "intrinsic."

a. For each of the mail processing cost pools which you studied and found to have volume variability less than 1 (as shown in your Table 1 at page 3 of your testimony (USPS-T-12)), please indicate whether you would consider any of the non-volume variable costs to be "intrinsic," as defined in the above-cited reference.

b. With respect to your response to preceding part a, for each cost pool for which you assert that none of the non-volume variable costs are intrinsic, please explain why you consider none of those non-volume variable costs to be intrinsic.

c. With respect to your response to preceding part a, for each cost pool for which you assert that at least some of the non-volume variable costs are intrinsic, please estimate the proportion of the non-volume variable costs that you would consider to be intrinsic.

Response.

a. My understanding is that witness Pifer (USPS-T-18) treats the non-volume-variable costs in the SPBS Priority and Manual Priority cost pools as "intrinsic"—i.e., the non-volume-variable costs for those operations are treated as incremental to Priority Mail. As I stated in Docket No. R2005-1, Tr. 5/1502, I agree with this treatment. The non-volume-variable costs in the remaining cost pools are correctly treated as not representing "intrinsic" costs.

b. According to USPS-LR-L-1, Appendix I, page I-5:

These costs are not increased by additional volume of the product.  
Nevertheless, they are caused by the provision of the entire volume of the product and are thus incremental to that product.

Unlike SPBS Priority and Manual Priority, the non-volume-variable costs in the other cost pools covered by my analysis cannot be viewed as being "caused" by the "provision of the entire volume" of any specific product (class or subclass), since the

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
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operations exist to process mail of several classes and/or subclasses. Thus, the non-volume-variable costs are not "intrinsic" and not incremental to any specific product.

- c. *I do not have empirical estimates of the proportion(s) of "intrinsic" non-volume-variable costs for the SPBS Priority and Manual Priority cost pools. The Manual Priority example in USPS-LR-L-1, Appendix I, page I-5 provides a rationale for treating the entirety of the non-volume-variable costs in those cost pools as "intrinsic."*

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
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VP/USPS-T12-14. Please refer to the responses of witness McCrery to VP/USPS-T42-8e and VP/USPST42-9d. Please suppose that, on those limited occasions where Standard Regular letter mail is merged with First-Class Mail, the volume of Standard Regular letter mail were to increase to the point where the volume would be sufficient to justify setting up a separate sortation scheme.

- a. Under a circumstance such as that described here, would you consider the setup and takedown time (and cost) of the additional sortation scheme for Standard Regular letter mail to be (i) fixed, or (ii) volume variable? Please explain the basis for your answer.
- b. Under a circumstance such as that described here, would you consider the setup and takedown time (and cost) of the additional sortation scheme for Standard Regular letter mail to be incremental to the cost of sorting Standard Regular letter mail? Please explain the basis for your answer.

Response.

- a.-b. In this scenario, the setup and takedown time (and cost) of the Standard Regular letter scheme would be neither "fixed" nor volume-variable. The setup cost is not volume-variable because further small additions of volume to the scheme do not increase the setup and take-down cost; given the existence of the scheme, the setup and takedown cost for the scheme is only avoidable if all of the mail is removed from it. That is, the cost is not variable on the margin, as in the marginal (unit volume-variable) cost concept, but with respect to the full increment of mail processed in the scheme. The cost may, however, be incremental to Standard Regular mail assuming the scheme were dedicated to the subclass—i.e., the cost of operations that work only Standard Regular is avoidable if the Postal Service did not provide the Standard Regular product.

Response of United States Postal Service Witness A. Thomas Bozzo (USPS-T-12) To  
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VP/USPS-T12-15. Please assume that the originating volume at one the Postal Service's smaller distribution facilities declines to the point where, as a direct result of the reduced volume, all originating sortation (of letters, flats and parcel-shaped mail) at that smaller facility is discontinued, after which the originating mail is consolidated and sorted with other originating mail at a nearby larger facility. (See Docket No. N2006-1, USPS-LR-N2006-1/6, for examples of such consolidation.) Please assume further that the larger facility is able to use existing sort schemes to process the originating letters, flats and parcels gained from the smaller facility. As a result of this consolidation, the daily setup and takedown time (and costs) for sorting letters, flats and parcels at the *smaller facility* are eliminated, but no new sort schemes are required at the gaining facility.

- a. Under a circumstance such as that described here, and focusing solely on the setup and takedown time (and cost) of the discontinued sortation schemes for letters, flats and parcels at the smaller facility, would you consider those costs to have been (i) fixed costs, or (ii) volume variable costs? Please explain the basis for your answer.
- b. Under a circumstance such as that described here, and focusing solely on the setup and takedown time (and cost) of the discontinued sortation schemes for letters, flats and parcels at the smaller facility, would you consider those costs to have been incremental to the cost of sorting letters, flats and parcels at that facility? Please explain the basis for your answer.

Response.

- a.-b. In this scenario, the setup and takedown time (and cost) of the discontinued schemes would be neither fixed nor volume-variable. By hypothesis, those schemes' setup cost at the smaller facility is only avoidable with the transfer of all originating mail volume to the larger facility, and further decrements of the small plant's volume would not afford any greater setup cost avoidance opportunity. Since the small plant's setup costs in the hypothetical scenario are avoided while the Postal Service continues to provide service for the small plant's volumes the cost avoidance is not "incremental" to the small plant's volume, but rather is a consequence of a change in the Postal Service's operating plan.

Response of United States Postal Service Witness A. Thomas Bozzo  
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**VP/USPS-T12-16.**

Please refer to your response to VP/USPS-T12-13, as well as to the testimony of witness Bradley (USPS-T-22) in Docket No. R2000-1 at page 34, lines 10-14, concerning the discussion of Priority Mail sorting operations, and the statement there that such operations "can and do sort other classes of mail, but without Priority Mail, those classes would be sorted in other operations. Consequently, if the Postal Service decided not to provide Priority Mail, the institutional costs for these operations would not exist. These costs thus are part of Priority Mail's incremental cost."

- a. Do you agree with the above-cited analysis that the institutional costs in those Priority Mail operations are properly considered part of Priority Mail's incremental costs, even though small amounts of other classes of mail also are sorted in the Priority Mail cost pool? Please explain fully any disagreement.
- b. In general, do you agree with the view that the institutional costs of a cost pool may properly be considered incremental both to that pool and the principal class of mail processed in that pool, even if small amounts of other mail are processed therein, provided that the cost pool would not exist if the principal class of mail processed in that pool did not exist? If you disagree, and believe that determination of incremental cost as discussed in preceding part A is limited exclusively to Priority Mail, please explain fully why that is necessarily the case.

Response.

- a. Yes, noting that I understand Prof. Bradley to be using "institutional costs" synonymously with "non-volume-variable costs" in the cited passage.
- b. I would not normally characterize a cost pool's "institutional" costs as "incremental... to [a] pool"—in normal parlance, "incremental costs" are associated with products, e.g., mail classes or subclasses. (All of the costs of a pool would be avoidable, in principle, if the pool did not exist.) I would agree that the non-volume-variable costs in a cost pool may be considered incremental costs of a principal class or subclass provided the cost pool, and the associated costs, would not exist were the principal class or subclass not provided. The practical issue, as I state in the response to VP/USPS-T12-13,

Response of United States Postal Service Witness A. Thomas Bozzo  
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is whether there exists a class of mail or other product whose absence would  
cause a given cost pool to cease operation.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of Valpak Direct Marketing Systems, Inc., and  
Valpak Dealers' Association, Inc.

**VP/USPS-T12-17.**

Please refer to your responses to VP/USPS-T12-11(b) and VP/USPS-T12-13.

- a. In your response to VP/USPS-T12-11(b), you stated that "If the sort scheme solely processed First-Class Mail, then the setup and takedown time could be considered incremental to the class in the sense that the associated cost could be avoided if the First-Class Mail service were no longer provided." In a situation where the cost of the setup and takedown time could be considered incremental to First-Class Mail, would it be appropriate to consider any such incremental cost an "intrinsic" cost, similar to the treatment of non-volume variable costs in the SPBS Priority and Manual Priority cost pools? If not, please explain why not.
- b. Is it your position that if any mail other than First-Class were to be processed in the scheme discussed in VP/USPS-T12-11(b), then no matter how small the volume of such other mail might be, under no circumstances could the cost of setup and takedown time be considered incremental to First-Class Mail? Please explain your position.

Response.

- a. In the referenced scenario, the setup and takedown costs would be incremental costs of First-Class Mail because they are "intrinsic" costs. That is, my understanding is that "intrinsic cost" is used to classify a source of "incremental cost" for a product.
- b. No. As Prof. Bradley correctly notes in the passage quoted in VP/USPS-T12-16, the issue is whether the cost in question is avoidable if a product or service (in this case, First-Class Mail) were not provided, and not the relative volume of other mail.



Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of Valpak Direct Marketing Systems, Inc., and  
Valpak Dealers' Association, Inc.

**VP/USPS-T12-18.**

- a. When a plant has, say, two BCS/DBCS machines, each one fully staffed, would your data base for that plant be recorded as having one or two BCS/DBCS MODS cost pools? That is, for each BCS/DBCS machine in a plant do you have separate MODS data, or are the BCS/DBCS MODS cost pool data aggregated over all BCS/DBCS machines in the plant, regardless of how many machines the plant has? Please explain.
- b. Please refer to your testimony (USPS-T-12) at page 5, lines 11-14, define the term "work center" as you use it there, and explain all differences, if any, between a work center and each of the 11 MODS cost pools shown in your Table 1 (p. 3, l. 13). In conjunction with your response, please assume that some plants have multiple BCS/DBCS machines and explain whether, in such a plant, (i) all BCS/DBCS machines collectively represent one work center, or (ii) each BCS/DBCS machine represents a separate work center.

Response.

- a. The site-level MODS data in my econometric data set are aggregated over all equipment associated with a given cost pool at a facility.
- b. In the referenced passage, I equate the term "handlings at each work center," quoted from the description of the Cost Segment 3 methodology prior to the introduction of MODS-based cost pools in BY 1996, with "distribution [cost pools'] workloads." Implicitly, I take "work center" to be synonymous with "cost pool." Thus, the D/BCS cost pools would represent all barcode sorters at a plant.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of Valpak Direct Marketing Systems, Inc., and  
Valpak Dealers' Association, Inc.

**VP/USPS-T12-19.**

Please provide a citation to all references of which you are aware in the published literature on Efficient Component Pricing ("ECP") that advocate basing Efficient Component Prices (or "discounts") on:

- a. Marginal cost;
- b. Volume variable cost; and/or
- c. Attributable cost.

Response.

Since "volume-variable cost" and "attributable cost" are Postal Service costing terms of art, I would not expect them to appear in the general economics literature. However, note that volume-variable cost is defined such that unit volume-variable cost is conceptually equivalent to marginal cost. A reference in the postal economics literature using ECP and volume-variable cost is: "Access Pricing in the Postal Sector: Complexities and Practicalities of the United States Experience," by John Pickett, David Treworgy, and Allison Conrad, in *Current Directions in Postal Reform*, edited by Michael Crew and Paul Kleindorfer, Kluwer Academic Publishers, 2000, 353-372. The role of "attributable cost" in ECP depends on how "attributable cost is defined in relationship to marginal and/or incremental cost." Please see also the response to VP/USPS-T12-20.

Response of United States Postal Service Witness A. Thomas Bozzo  
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**VP/USPS-T12-20.**

- a. Are you familiar with the article, "The Pricing of Inputs Sold to Competitors," by William J. Baumol and Gregory Sidak?
- b. Would you agree that the above-referenced article by Baumol-Sidak states that ECP should reflect incremental cost? If you do not agree, please explain fully why not.
- c. Please provide a citation to all references of which you are aware in the published literature on ECP that advocate basing Efficient Component Prices on any economic cost concept other than incremental cost.

Response.

- a. Yes.
- b.-c. In the referenced paper, Baumol and Sidak state that the ECP should reflect the average incremental cost of the "bottleneck" services and the opportunity cost of providing "downstream" access. This implies that ECP discounts should be based on the economic costs avoided as a result of providing access. As a shorthand term of general applicability, the economic cost avoidance can be termed an average incremental cost avoidance—as is done, e.g., in Baumol, Ordover, and Willig's "Parity Pricing and Its Critics: A Necessary Condition for Efficiency in the Provision of Bottleneck Services to Competitors." However, the relevant practical issue is the nature of the cost avoidance. In cases where the cost avoidance does not include product-specific "fixed" or other inframarginal costs, average incremental cost reduces to marginal cost. Therefore, it would be incorrect to take Baumol and Sidak as advocating the use of average incremental cost to the exclusion of the marginal cost concept.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatories of Valpak Direct Marketing Systems, Inc., and  
Valpak Dealers' Association, Inc.

Also, as Kahn and Taylor note in "The Pricing of Inputs Sold to Competitors:  
A Comment," marginal costs also play an important role in understanding  
the allocative efficiency of prices under ECP. This is consistent with the  
roles for unit volume-variable (marginal) and incremental costs described in  
Prof. Baumol's Docket No. R87-1 testimony, USPS-T-3.

Response of United States Postal Service Witness A. Thomas Bozzo  
(USPS-T-12) To Interrogatory of Valpak Direct Marketing Systems, Inc., and  
Valpak Dealers' Association, Inc.  
Redirected from Witness Van-Ty-Smith (USPS-T-11)

**VP/USPS-T11-6.**

Please refer to the response to VP/USPS-T11-4(a).

- a. Please explain how volume variable costs of the DPS cost pool [sic] are distributed to the different classes and subclasses of mail with letter-shaped volume that is DPS'd.
- b. Please (i) indicate what mail volume data are available for the DPS cost pool [sic], and explain the source of such data — e.g., IOCS tallies, machine counts, etc.; and (ii) explain the extent to which subclasses and rate categories of mail can be ascertained from such data.

Response.

- a. Answered by witness Van-Ty-Smith (USPS-T-11).
- b. Please note that the Postal Service's mail processing model does not define a cost pool specifically for DPS, and that IOCS tallies are not a source of mail volume data.

MODS collects piece handlings for DPS operations at MODS facilities; see, e.g., the response to TW/USPS-T12-1. MODS data do not identify subclasses or rate categories. Estimates of DPS volumes by subclass from the City Carrier Cost System and Rural Carrier Cost System may be found, respectively, in USPS-LR-L-11, ALDRAN.LOTUS.CITY.SATURATN.FY2005, and USPS-LR-L-5, file CS10.xls, tab "Inputs DK."

1 CHAIRMAN OMAS: This now brings us to oral  
2 cross-examination.

3 Two participants have requested oral cross,  
4 the United Parcel Service and Valpak Direct Marketing  
5 Systems, Inc. and Valpak Dealers Association, Inc.

6 Is there any other participants that would  
7 like to cross-examine?

8 (No response.)

9 CHAIRMAN OMAS: Mr. McKeever, please  
10 introduce yourself for the record.

11 MR. MCKEEVER: Thank you, Mr. Chairman.  
12 John McKeever for United Parcel Service.

13 Upon further review, UPS has concluded not  
14 to conduct oral cross-examination.

15 CHAIRMAN OMAS: Thank you, Mr. McKeever.

16 Mr. Olson, would you please introduce  
17 yourself for the record?

18 MR. OLSON: Thank you, Mr. Chairman.  
19 William Olson representing Valpak Direct Marketing  
20 Systems and Valpak Dealers Association.

21 CROSS-EXAMINATION

22 BY MR. OLSON:

23 Q Good morning, Dr. Bozzo.

24 A Good morning, Mr. Olson.

25 Q I want to begin by asking you to look at

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1 your response to our Interrogatory 16(a).

2 A I have it.

3 Q That question dealt with a Priority Mail  
4 cost pool in which other classes of mail may sometimes  
5 be sorted, correct?

6 A That's correct.

7 Q In your response you said you agree with  
8 Professor Bradley that non-volume variable costs in  
9 the cost pool should be treated as incremental to  
10 Priority Mail because these non-volume variable costs  
11 would not exist if the Postal Service didn't offer  
12 Priority Mail, correct?

13 A That is my understanding of the theory for  
14 the Priority Mail cost pool's incremental costs.

15 Q Okay. Let me ask you to keep that in mind  
16 and turn to your response to our Interrogatory 11(b).

17 This question had to do with first class,  
18 and in 11(b) you say --

19 A I'm not there yet.

20 Q I'm sorry.

21 A Okay. I have it.

22 Q In your response to 11(b) you say, "If the  
23 sort scheme solely processed first class mail then the  
24 setup and takedown time could be considered  
25 incremental to the class in the sense that the

1 associated costs could be avoided if the first class  
2 mail service were no longer provided."

3 Then you add a qualifying sentence here  
4 beginning with, "However..." You say, "However, if  
5 mail other than first class mail were processed in the  
6 scheme the setup and takedown time would not be  
7 incremental to first class mail."

8 Here's my question. For example, in  
9 periodicals it's my understanding that there's a very  
10 small percentage of periodicals that are sent in  
11 letter-shaped form, in envelopes, perhaps newsletters.  
12 Perhaps it's one percent or less of periodicals.

13 Let me put this I think in the form of a  
14 hypothetical. It might be easiest. Suppose that an  
15 incidental volume of periodical letter-shaped mail  
16 were sometimes sorted with first class letters. Would  
17 any percentage of periodical mail being sorted with  
18 first class mail trigger this qualifying sentence that  
19 begins with "However..." and cause the costs not to be  
20 incremental to first class?

21 A Well, the issue is not the proportion of  
22 cost for other subclasses as such. The issue is  
23 whether the operation is a specific subclass in the  
24 sense that the operation would go away if the major  
25 class were no longer to be provided, which is the gist



1 of the response to 11(b).

2 The distinction I would draw between the  
3 case in 11(b) and the case in Valpak Interrogatory  
4 16(a) is that DBCS operations are not so generally  
5 class specific in the sense that Priority Mail  
6 operations are.

7 That is, there would still be some need to  
8 sort the periodical pieces in a hypothetical world  
9 where the first class mail went away so the DBCS  
10 operation itself would not in your hypothetical  
11 obviously go away.

12 Q So you're hinging your distinction in your  
13 response to our Interrogatories 16 and 11 on the fact  
14 that the Priority Mail cost pool is called Priority  
15 Mail cost pool?

16 A Well, the name Priority Mail and the  
17 Priority Mail cost pool indicates the causal  
18 relationship between the existence of the Priority  
19 Mail subclass and the existence of the operation to  
20 sort Priority Mail that occasionally also sort other  
21 classes.

22 Q Wouldn't it be true though that even in the  
23 Priority Mail cost pool that the other mail that is  
24 incidental to Priority Mail that's sometimes sorted at  
25 the same time as Priority Mail would have to be sorted

1        anyway, much the way that my periodical letter-shaped  
2        pieces would have to be sorted anyway?

3            A        That is true. However, there already exists  
4        non-Priority operations which the non-Priority pieces  
5        would go.

6                    In effect, the variable costs would shift  
7        from the Priority Mail cost pool to a non-Priority  
8        Mail cost pool, and the fixed costs for the non-volume  
9        variable costs, to be a little more precise, of the  
10       Priority Mail cost pool would go away.

11            Q        And in the case of our Interrogatory 11  
12        having to do with first class mail, you're saying that  
13        if you had a scheme that processed first class mail  
14        and you had any other sort of mail processed in that  
15        it would not be incremental to first class mail?

16            A        Well, it should be noted that while schemes  
17        may primarily process mail of particular classes, the  
18        schemes, generally speaking, are not processing a  
19        class, but processing a scheme in the sense of  
20        outgoing primary or incoming primary or so on and so  
21        forth.

22                    Once again, the question is are the non-  
23        volume variable costs of the letter sorting operation  
24        avoidable with the removal of the first class mail?  
25        The question is the hypothetical periodical volume,

1 and I would note that as a practical matter the  
2 fraction of mail other than first class mail is I  
3 think more significant than your hypothetical would  
4 tend to suggest.

5 The hypothetical non-first class mail still  
6 needs to be processed. If you assume for the sake of  
7 argument that that is still going to be processed in  
8 the equivalent DBCS scheme, then the non-volume  
9 variable costs incurred for that scheme are still  
10 going to be incurred.

11 Removing the first class mail will not have  
12 gotten rid of the scheme. It will therefore not have  
13 gotten rid of any non-volume variable costs associated  
14 with running that scheme, and thus the non-volume  
15 variable costs are not appropriately considered to be  
16 incremental to first class mail.

17 Q Let me ask you this. If you had no other  
18 letter-shaped pieces sorted other than first class  
19 mail would the cost of that scheme be still  
20 incremental to first class?

21 A Again, the question is whether the scheme  
22 would go away in the absence of the first class mail.  
23 I think that is a rather extreme hypothetical in which  
24 case it probably would go away. Again, obviously the  
25 issue is to what extent that actually represents

1 reality.

2 Q If you were trying to understand your  
3 definition or how you're using the types of costs that  
4 are incremental to a class of mail and if only 100  
5 percent of the mail in this hypothetical, whether you  
6 think it happens in the real world or not, if 100  
7 percent of the process is first class mail and the  
8 first class mail goes away, I take it you are agreeing  
9 that the setup and takedown time would be considered  
10 incremental to first class mail?

11 A In that case, presumably that would be true.

12 Q Why presumably, out of curiosity? Is that a  
13 limitation on your response?

14 A No, not really. Again, the issue is one of  
15 we're in a world where there are more classes of mail  
16 than first class mail.

17 Q Could you look at your response to 14(a),  
18 please?

19 A I have it.

20 Q It our Question (a) you have a sort of a  
21 merged answer for (a) and (b), but in our Question (a)  
22 we said under the circumstance such as described here,  
23 which had to do with occasions where standard regular  
24 letter mail was merged with first class letter mail.

25 Under a circumstance such as that described

1 here would you consider the setup and takedown time of  
2 the additional sortation scheme for standard regular  
3 letters to be fixed or volume variable, and your  
4 response basically is neither, correct?

5 A That's correct.

6 Q Okay. I'm wondering whether using the word  
7 fixed was a problem. Let me ask you to explain to me  
8 how you used these terms.

9 You have one response to an interrogatory  
10 where you seem to indicate that institutional costs  
11 and non-volume variable costs are synonymous.

12 A I would clarify that my meaning there was  
13 that the terms institutional costs and non-volume  
14 variable costs are often used synonymously, and they  
15 are in many cases effectively synonymous.

16 However, if you really wanted to dot the Is  
17 and cross the Ts you should be more precise about  
18 costing terms than using terms like institutional or  
19 fixed which have varying meanings.

20 Q Let's explore that for a moment because the  
21 question I was referring to is 16(a) where you noted  
22 that Professor Bradley appeared to be using  
23 institutional costs synonymously with non-volume  
24 variable costs in a particular passage, correct?

25 A Correct.

1           Q     Okay. Now, what is your distinction? Go  
2 ahead and dot the Is and cross the Ts for us. What's  
3 the difference between institutional costs and non-  
4 volume variable costs?

5           A     Well, non-volume variable costs are a  
6 category of costs that may be considered to be  
7 institutional costs. They do not necessarily  
8 represent all costs that may be considered  
9 institutional costs depending on how you define  
10 institutional cost.

11          Q     So you're saying that non-volume variable  
12 cost is a subset of institutional cost, depending on  
13 how institutional cost is defined?

14          A     That is correct.

15          Q     Okay. How about fixed costs? Can you  
16 compare and contrast that to non-volume variable and  
17 institutional?

18          A     Well, again when you use a term like fixed  
19 you have to answer the question fixed with respect to  
20 what? A non-volume variable cost, for instance,  
21 represents a cost that is fixed with respect to the  
22 change in volume on the margin.

23                But, as the scenario of Valpak Interrogatory  
24 14 indicates, there may be costs that are fixed with  
25 respect to a change on the margin that are not fixed

1 if you considered a volume change such as taking away  
2 an entire subclass of mail.

3 That is the distinction that I'm making in  
4 saying that the costs in this scenario are neither  
5 fixed nor volume variable.

6 Q Let me see if I can rephrase the question  
7 and ask you how you might answer it if we asked if the  
8 setup and takedown time and costs reflected in  
9 Question 14 would be non-volume variable or volume  
10 variable?

11 A The response to Valpak Interrogatory 14  
12 states that they are non-volume variable costs that  
13 may, however, be incremental to standard regular mail,  
14 assuming the scheme were dedicated to the subclass.  
15 That's what the response says.

16 Q And if we were to substitute the other one  
17 of these near synonyms, institutional costs, and say  
18 would the setup and takedown costs be either  
19 institutional costs or volume variable, how would you  
20 respond then?

21 A Again, you would need to supply a precise  
22 definition of institutional cost. However, if you  
23 assume that institutional cost does not include costs  
24 that are neither attributable to classes as volume  
25 variable costs or as incremental costs then I would

1 say that the costs were not institutional costs.

2 Again, you've constructed a scenario for  
3 Valpak Interrogatory 14 where these costs by  
4 definition are non-volume variable costs that are  
5 incremental to standard regular.

6 Q Okay. I'm still not sure I understand the  
7 distinctions you're drawing. Let me just put it into  
8 a context of postal law for a moment and ask you if  
9 you can respond to this question.

10 There was a time when it was argued that the  
11 Postal Reorganization Act called for three different  
12 types of costing in the Act, and eventually the Court  
13 said no, there were just two types. Mail had to pay  
14 its direct and indirect attributable costs and then a  
15 portion of other costs.

16 We normally think of costs being either  
17 attributed or costs that are distributed based on a  
18 coverage factor, correct?

19 A I'm not a lawyer, but that's my general  
20 understanding of the rate making scheme.

21 Q So in the world where costs are either  
22 attributed or assigned and recovered through a  
23 coverage factor would it be your analysis that these  
24 setup and takedown cost are attributable or  
25 institutional?



1           A     It depends on the nature of the operation.  
2     In the case of class specific operations, the setup  
3     and takedown costs, assuming that they are in fact  
4     avoidable with the removal of a subclass, would be  
5     attributable as incremental costs.

6                     If the setup and takedown costs are not  
7     caused by the provision of any particular subclass  
8     then since those costs, which I think are the larger  
9     by far fraction of the setup and takedown costs, those  
10    costs are not attributable as volume variable costs.

11                    They're also not attributable as incremental  
12    costs.  Therefore, they would be non-volume variable  
13    costs that would go into the other or what's sometimes  
14    called the institutional costs category.

15           Q     As you were describing those institutional  
16    costs you used a phrase that I didn't catch.  I  
17    unfortunately can't recall.  I didn't get enough of  
18    what you were saying to tell how you described it.

19                    Do you recall at the beginning of your  
20    definition what phrase you used?  I should have  
21    stopped you.  I'm sorry.

22           A     From that amount of pointer I'm not sure  
23    which part of the response was confusing.

24           Q     Okay.  I hate to interrupt a witness, but at  
25    that point I should have.  I'm sorry.

1                   Let me ask you to look at your response to  
2 18, Valpak 18.

3           A     I have it.

4           Q     In 18(a) you explain that all similar  
5 equipment at a facility is included in a single MODS  
6 cost pool. Is that a fair description?

7           A     That would be a fair description.

8           Q     For example, if you had a plant that had  
9 multiple AFSM 100s for flats, the cost of operating  
10 all of those machines would be aggregated into one  
11 cost pool, correct?

12          A     That's generally correct. There is some  
13 disaggregation of the data between incoming and  
14 outgoing operations that's used in the analysis as  
15 well.

16          Q     We asked Mr. McCrery some questions, and he  
17 told us that the Postal Service has over 200  
18 facilities with AFSM 100s and over 400 with BCS  
19 equipment. Does that sound about right, if you know?

20          A     It sounds about right.

21          Q     And the cost of operating the AFSM 100s when  
22 aggregated over all facilities equaled the total AFSM  
23 100 cost pool for all MODS facilities, correct?

24          A     Correct. Whatever the total cost reported  
25 in Witness Van-Ty-Smith's tables would represent the

1 national aggregate for AFSM labor.

2 Q And when you did your econometric analysis  
3 you analyzed the data in each of these individual cost  
4 pools for MODS facilities, correct?

5 A Correct.

6 Q When Witness McCrery responded to us he also  
7 said there were many facilities that have multiple  
8 sorting machines.

9 He said, for example, three facilities, and  
10 this is his response to Valpak-T-42-4 and T-42-3 for  
11 these various numbers for the record, but he said  
12 three facilities have as many as eight AFSM 100s, many  
13 have six or more DBCSs, and one has a very large  
14 number of DBCSs. I'm sorry. I don't have that  
15 written down.

16 You understand that some facilities have  
17 multiple sorting machines, correct?

18 A Yes, I'm aware of that.

19 Q If you were to compare the AFSM 100 cost  
20 pool with the DBCS cost pool, would you say they'd be  
21 relatively homogeneous vis-à-vis each other, the  
22 aggregate cost pools?

23 A I don't know what you mean by homogeneous  
24 vis-à-vis each other.

25 Q Well, one is for letter sorting and one is

1 for flat sorting, but that's the type of costs that  
2 are in the pools.

3 A Well, the AFSM 100 cost pool reflects flat  
4 piece sorting at the AFSM 100 using the AFSM 100  
5 equipment. The DBCS cost pool represents letter piece  
6 sorting using various forms of letter barcode sorting  
7 equipment.

8 I'd say that in terms of the equipment, I  
9 guess perhaps assuming that when you said homogeneous  
10 you mean relatively homogeneous in terms of the  
11 equipment type being used therein --

12 Q And the shape of mail being processed.

13 A And the shape of mail being processed. Yes,  
14 in general they are.

15 Q Okay. Let's just talk about the DBCS cost  
16 pool. Is it necessary that all of the activities that  
17 are performed in all facilities that are recorded in  
18 that cost pool be treated as homogenous?

19 A I'm sorry. Could you repeat the question?

20 Q Yes. I assume with the DBCS cost pool there  
21 are different activities that are being conducted.  
22 It's not just one activity.

23 I'm wondering if there's any reason why you  
24 could not analyze the various activities within each  
25 cost pool below the level of a cost pool and make

1 conclusions about how those costs behave.

2 A Well, the answer is, first of all, the DBCS  
3 cost pool is analyzed econometrically at the level of  
4 the incoming and outgoing operations, so in fact we  
5 don't assume that the exact mix of operations on the  
6 outgoing side and the incoming side are necessarily  
7 the same when we estimate the elasticities.

8 Now, in USPS-T-12 I describe in some detail  
9 in Section 2(f) the constituent activities within the  
10 sorting operations and present some data from IOCS on  
11 the relative amounts of labor time that is spent in  
12 each of those operations.

13 They do differ somewhat between incoming  
14 operations and outgoing operations, and that's part of  
15 the reason why we analyze them separately.

16 Q Well, sticking with the DBCS, you just  
17 confirmed I believe that those cost pools record both  
18 incoming operations and outgoing operations, correct?

19 A Correct. MODS operations generally identify  
20 the scheme. For sorting operations they generally  
21 identify the scheme that's being processed.

22 Q But the cost pool includes both incoming and  
23 outgoing, correct?

24 A The cost pool includes incoming and outgoing  
25 operations. However, for the purposes of the

1 econometric variability estimation the incoming and  
2 outgoing operations are estimated separately.

3 Q Right. I understand. In your response to  
4 11(a), if you have that, occasionally I think you say  
5 here that even in plants with large volumes that two  
6 machines might be running the same sort scheme  
7 concurrently, correct?

8 A Yes. It's my understanding that in some  
9 operations the schemes do run concurrently on multiple  
10 machines to process the volume and the availability  
11 window.

12 Q And at the other end of the spectrum there  
13 would be facilities with less efficient volume where  
14 they might take first class and standard mail and  
15 process them together, letters from both of those  
16 subclasses, correct?

17 A They may.

18 Q When you say they may, you acknowledge they  
19 do in some facilities, don't they? It's not that it's  
20 just possible. I mean, it actually happens.

21 A I assume from the presence of data  
22 indicating other subclasses including standard mail in  
23 most operations there is some amount of mail that may  
24 be processed together.

25 The MODS data themselves don't indicate the

1 class of mail being run. I assume that it happens,  
2 but I couldn't tell you that it specifically happens  
3 here or there at this time or this or that time.

4 Q But is it not true that in different  
5 facilities, perhaps depending on the amount of mail to  
6 process, that letter sorting operations are not  
7 identical in all facilities and that costs may vary in  
8 different ways? Wouldn't that be likely?

9 A I agree that there are facility specific  
10 factors that affect costs in mail processing  
11 operations.

12 The econometric models control for facility  
13 specific non-time varying factors, as well as trend  
14 issues, amount of equipment, other things that might  
15 be specific to a facility that would affect their  
16 costs.

17 Q Is there any place where the issue that we  
18 just discussed is accounted for where some facilities  
19 might aggregate standard mail and first class mail for  
20 letter processing?

21 A That is not incorporated in the variability  
22 models. On the subclass cost distribution side, the  
23 extent to which that's done would be reflected in the  
24 IOCS tallies to form the distribution keys in the  
25 aggregate.

1           Q     It just occurred to me another question, a  
2 follow-up to some of the things we discussed at the  
3 very beginning. If you would indulge me, I want to go  
4 back. This wasn't planned to test your memory. I  
5 just had another question.

6                     In your response to Question 16 where you  
7 dealt with a Priority Mail cost pool and then you said  
8 that that cost pool was specific to Priority Mail and  
9 that's why the setup and takedown costs would be  
10 incremental, are there other cost pools like that, or  
11 is that unique?

12           A     My understanding is that similar treatments  
13 are made in the incremental cost model for the Express  
14 Mail, I believe possibly some registered mail  
15 operations.

16                     I'm not an expert on the incremental cost  
17 model so that's my recollection, but there are other  
18 class specific operations that I believe do have their  
19 non-volume variable costs treated similarly to  
20 Priority.

21           Q     Are there any other cost pools that you  
22 analyzed that have that feature?

23           A     Not that I analyzed.

24                     MR. OLSON: Mr. Chairman, to give fair  
25 warning to the witness and to the Commission and



1     opposing counsel, I have about three minutes of  
2     questions on some responses that were originally  
3     submitted to Witness Van-Ty-Smith by us and they were  
4     responded to by Witness Bozzo, but in candor they were  
5     with respect to his testimony T-46 where I was not  
6     here to cross-examine him on Monday.

7             I would ask permission to ask these few  
8     questions. I don't think I'll take more than three  
9     minutes if counsel doesn't object. I advised him  
10    before. I don't know what his position is.

11            MR. HESELTON: The Postal Service's position  
12    is that for three minutes on questions that grow  
13    directly out of the witness' responses we would not  
14    have an objection at this point, but would reserve the  
15    right to object further on down the line.

16            MR. OLSON: I appreciate that. Thank you.

17            CHAIRMAN OMAS: Thank you. Proceed.

18            THE WITNESS: I will just note that I have  
19    strictly T-12 material in front of me, so you may need  
20    to provide me with a copy of the T-46 responses.

21            MR. OLSON: I happen to have that. It's our  
22    Valpak Interrogatories 7 and 8 to Van-Ty-Smith that  
23    were redirected to you.

24            THE WITNESS: Thank you.

25    //

1 BY MR. OLSON:

2 Q This isn't very detailed, but I think you  
3 can answer these with some ease. If you would take a  
4 look at your response to Interrogatory 8, the first  
5 question is do the 2005 percentages that you supplied  
6 in the last column reflect the new IOCS data  
7 collection procedures for the full year?

8 A They do. That is the only data available  
9 for fiscal 2005.

10 Q Okay. So if you look at that response, for  
11 the automated environment as it existed in 2005 45  
12 percent of IOCS tallies did not identify any mail?

13 A That's correct.

14 Q Do the percentages for 2005 which you  
15 provide in your response there include IOCS tallies of  
16 city carriers when they're casing mail in the office?

17 A These tallies do not. My recollection is  
18 that the table from the Data Quality Study Technical  
19 Report No. 1 specifically addressed mail processing,  
20 and thus I only provided the breakdown for mail  
21 processing tallies to be consistent with the earlier  
22 series as I understood it.

23 Q Okay. Well, I don't think it's going to  
24 matter for this question.

25 Witness Coombs describes in her testimony

1 the FSS which the Postal Service is testing and  
2 expects to deploy I think toward the end of 2008.

3 Based on your knowledge of Postal  
4 operations, would you expect that widespread  
5 deployment of the FSS would affect the percentage of  
6 IOCS tallies for which no mail is identified?

7 A Well, this obviously requires me to  
8 speculate on an operation whose basic technical  
9 parameters haven't been determined.

10 In general, however, piece sorting  
11 operations tend to have higher fractions of handling  
12 tallies than the overall mail processing system. I  
13 should say, to be even more precise, handling tallies  
14 plus other tallies identifying specific subclasses of  
15 mail.

16 It is likely that the addition of FSS  
17 operations, other things held equal, would increase  
18 the fraction of tallies with a specific mail product  
19 identified, other things held equal.

20 Q I'm sorry. I'm not sure. I thought where  
21 you wound up in that answer, if you have flats and you  
22 have more of the flat processing mechanized with fewer  
23 touches on the mail for manual sortation, for example,  
24 wouldn't that increase the number of IOCS tallies that  
25 are for not handling mail?

1           A     It does not. As I describe in USPS-T-46,  
2     the IOCS uses special sampling procedures for  
3     mechanized and automated operations that are designed  
4     to ensure that we get a sample of all pieces that are  
5     handled through the operations and not nearly those  
6     that the Postal employee happens to physically touch  
7     in the course of processing.

8                 The effect of the combination of the pieces  
9     of mail that are touched plus these sampling rules  
10    that are designed to get a full sample of the mail  
11    that's actually processed on automation leads to the  
12    result that I described.

13           Q     So that fact that we're in a more and more  
14    automated environment where now 45 percent of the IOCS  
15    tallies did not identify any mail, those two factors  
16    are not correlated, the fact that there is more  
17    automation and more not handling mail tallies?

18           A     It is correlated, but the specific  
19    phenomenon is a little different than what you may  
20    think at first glance.

21                 The issue is not that manual operations by  
22    themselves produce more tallies with subclasses  
23    identified than automated operations, but rather that  
24    the introduction of automated operations by saving  
25    labor costs changes the mix of operations such that

1     sorting operations and other operations where mail is  
2     handled and subclasses are identified on the tallies  
3     are a smaller fraction of the Postal Service's total  
4     cost.

5             What ends up happening is that allied labor  
6     operations platform -- opening units, mail preparation  
7     -- where there tend to be fewer opportunities to  
8     identify specific classes of mail using existing IOCS  
9     sampling procedures, those operations predominate in  
10    the system.

11            Indeed, between FY 1996 and FY 2005, a  
12    fraction of mail processing costs for distribution  
13    operations has declined reasonably markedly relative  
14    to size of allied labor. In effect, between 1996 and  
15    2005 there's been what you might consider an adverse  
16    shift in the operation mix from the standpoint of  
17    getting direct tallies with subclass information  
18    identified.

19            Q     You said when I started to ask you the  
20    question about the FSS that you would expect that with  
21    the deployment of the FSS in fiscal 2008 that there  
22    would be fewer not handling mail tallies?

23            A     As a fraction of the total tallies.

24            Q     And do you believe you've had an opportunity  
25    to explain that phenomenon, or is there anything you'd

1 care to add to it?

2 A Again, if you add a piece sorting operation,  
3 other things equal, you will add a chunk of costs that  
4 have a higher than average fractional tallies of mail  
5 identified, and when you add something on the margin  
6 that has an above average quantity of direct tallies  
7 then the overall average will go up by definition.

8 Obviously what I could not even begin to  
9 speculate on is how the overall Postal Service  
10 operational mix might vary in an FSS world. Again,  
11 that would depend on the ultimate parameters of the  
12 program.

13 MR. OLSON: I thank counsel for the Postal  
14 Service.

15 It's always a pleasure, Mr. Bozzo. Thank  
16 you.

17 THE WITNESS: You're welcome.

18 CHAIRMAN OMAS: Is there anyone else who  
19 wishes to cross-examine Witness Bozzo? Mr. McKeever?

20 MR. MCKEEVER: Mr. Chairman, I do have some  
21 follow-up cross-examination with respect to counsel  
22 for Valpak's cross-examination.

23 CHAIRMAN OMAS: Please proceed.

24 //

25 //

1 CROSS-EXAMINATION

2 BY MR. MCKEEVER:

3 Q Dr. Bozzo, at the beginning of your cross-  
4 examination you and counsel for Valpak discussed the  
5 meaning of the terms volume variable, non-volume  
6 variable, and the term fixed was also used. Do you  
7 remember that?

8 A Yes.

9 Q Now, when you use the term volume variable I  
10 understand that you are referring then to costs that  
11 vary on the margin with small additions of volume. Is  
12 that correct?

13 A Correct. Volume variable costs are variable  
14 in the economic marginal cost sense, so yes, small  
15 variations in volume on the margins.

16 Q That's what you state in your response to  
17 Interrogatory Valpak/USPS-T-12-14, correct?

18 A Yes.

19 Q Is that the same as saying that you are  
20 measuring short run marginal costs?

21 A No.

22 Q How is it different?

23 A The non-volume variable costs discussed in  
24 the response to Valpak Interrogatory No. 14 maybe  
25 would in the scenario be non-volume variable in both

1 short and long run.

2 That is, unless the long run means that you  
3 can create a technology that does not need to be set  
4 up or taken down, which seems as a practical matter  
5 unlikely, even in the long run a change in volume on  
6 the margin would still require setup and takedown  
7 costs.

8 Q I think I understand, but let me ask one  
9 more question to make sure. Are you saying that your  
10 non-volume variable costs may include some short run  
11 marginal costs?

12 A Well, to perhaps clarify, the base year  
13 volume variable cost analysis is, technically  
14 speaking, as a matter of economics a short run  
15 marginal cost analysis.

16 Really any economic cost analysis other than  
17 a pure long run cost analysis is a form of short run  
18 cost analysis. I'm not sure. I think I may have lost  
19 the specific question.

20 Q But you have answered my question, at least  
21 the question that was in my mind, so I thank you.

22 I have I hope just two additional questions.  
23 You also recognized in that cross-examination that if  
24 one looks at larger volume changes as contrasted with  
25 the small additions to volume that you look at, that



1 if one looks at larger volume changes some costs that  
2 are non-volume variable on the margin are volume  
3 variable with respect to those larger volume changes.  
4 Is that correct?

5 A That is generally correct. There are  
6 inframarginal costs which I believe are recognized in  
7 the Postal Service's incremental cost model.

8 Q In the context of your testimony then are  
9 there three categories of costs -- volume variable  
10 costs as you use the term, meaning costs that vary on  
11 the margin with small additions of volume, and then  
12 non-volume variable costs and then fixed costs?

13 A No. I believe that a more accurate  
14 partition would be between volume variable costs and  
15 then non-volume variable costs that may constitute  
16 incremental costs and then all other non-volume  
17 variable costs.

18 Q Okay. To restate so I understand, you have  
19 two categories, volume variable and non-volume  
20 variable, with non-volume variable containing two  
21 categories within it being fixed and other non-volume  
22 variable costs?

23 A No. I would say incremental costs and other  
24 non-volume variable costs.

25 Q How does the term fixed fit in here then?

1       When I hear the term volume variable I contrast that  
2       in my own mind with fixed. Where do the fixed costs  
3       fit into that scheme?

4           A     Again, as I discussed with Mr. Olson, the  
5       question for fixed cost is fixed with respect to what.

6                   The non-volume variable costs in general are  
7       the costs that are fixed with respect to changes in  
8       volume on the margin.

9                   The essence of the distinction between  
10      incremental costs and other non-volume variable costs  
11      is that the incremental costs are not fixed with  
12      respect to changes in volume that involve the  
13      hypothetical elimination of an entire product  
14      category.

15           Q     So there are fixed costs, but exactly how  
16      you measure them or define them really depends on what  
17      you're contrasting it to, whether it's small volume  
18      changes or larger volume changes?

19           A     Yes, and more generally, as I say, it's  
20      fixed with respect to what.

21                   MR. MCKEEVER: I understand. Thank you

22                   CHAIRMAN OMAS: Thank you, Mr. McKeever.

23                   Is there anyone else who wishes to cross-  
24      examine Witness Bozzo?

25                   (No response.)

1 CHAIRMAN OMAS: Commissioner Goldway?

2 COMMISSIONER GOLDWAY: Thank you.

3 This is a question that covers some of the  
4 discussion that you've had with representatives from  
5 Valpak here, but it's specific for PRC staff and how  
6 we look at our formulas.

7 On page 50 of your testimony you describe  
8 the major changes that you have made to your  
9 processing variability models since the last rate  
10 case. You mentioned that in this case you separately  
11 estimate the variability of outgoing and incoming  
12 operations for both the DBCS and the AFSM 100  
13 operations.

14 You further explain that for DBCS costs you  
15 create separate pools for outgoing and incoming  
16 operations and run separate regressions. You  
17 recommend that a weighted average of the two results  
18 be used to distribute these variable costs. Is that  
19 right?

20 THE WITNESS: That's correct.

21 COMMISSIONER GOLDWAY: You then explain that  
22 for the AFSM 100 costs you do it differently. You use  
23 one cost pool and one regression, but that regression  
24 has separate terms for outgoing and incoming output on  
25 the right-hand side of the equation.

1           Rather than averaging the two variability  
2 estimates to distribute these costs, you add the two  
3 together. Is that right?

4           THE WITNESS: That's correct.

5           COMMISSIONER GOLDWAY: Can you tell me why  
6 you took these different approaches for estimating and  
7 distributing variable costs for these two processing  
8 operations?

9           THE WITNESS: Well, I explain the concerns a  
10 bit later in the testimony I believe. Section 7(b)  
11 discusses the alternatives that I considered.

12          COMMISSIONER GOLDWAY: 7(e)?

13          THE WITNESS: 7(b) as in boy.

14          COMMISSIONER GOLDWAY: Could you explain  
15 those?

16          THE WITNESS: The issues dealt with the  
17 question of whether the cost effects between the  
18 incoming and outgoing sides were relatively reasonable  
19 as discussed on page 90.

20                The cost effect between outgoing and  
21 incoming DBCS from the AFSM style model as an  
22 anomalous result suggests that there's a negative and  
23 significant effect from outgoing.

24          COMMISSIONER GOLDWAY: So you did apply the  
25 same approach in each?

1           THE WITNESS: I did consider the same  
2       approach for both of the operations.

3           In the case of the approach used for AFSM,  
4       it could be considered to be somewhat more general in  
5       the sense that it allows for an interaction between  
6       the incoming and outgoing operations.

7           As Professor Roberts has discussed at some  
8       length in his papers on the subject, and he's  
9       certainly correct as a general matter, it's a matter  
10      of demonstrating empirically whether or not various  
11      sorting operations are independent in the sense that  
12      just the operation's output or workload affects the  
13      hours in the operation.

14          I considered both methods for both the DBCS  
15      and the AFSM cost pool. In the case of the AFSM cost  
16      pool, as I describe in Section 7(b), it doesn't matter  
17      within the statistical variation of the estimates  
18      which method you choose so I chose the more general  
19      method permitting the interaction between the  
20      operations.

21          In the case of the DBCS operation, the  
22      interaction term comes out negative, which is quite  
23      anomalous, and so I used separate models to provide  
24      results that don't feature that anomaly, which I  
25      considered to be a flaw of the interaction model.

1           That could be studied further, but I just  
2       didn't want to introduce the anomalous results by the  
3       back door.

4           COMMISSIONER GOLDWAY: I think it would be  
5       useful if you could provide the numbers that you ran  
6       on the different approaches for the record.

7           THE WITNESS: Sure. Those are in fact  
8       provided in Appendix C of USPS-T-12. There's a  
9       reference to it at lines 14 to 15 of page 90.

10          COMMISSIONER GOLDWAY: And so the different  
11       options are in fact in the record now?

12          THE WITNESS: Yes, the options I considered.  
13       The summary results are provided in Appendix C, and  
14       the estimation code is provided in USPS-LR-L-56.

15          COMMISSIONER GOLDWAY: Do you have any idea,  
16       any speculation, as to why there was this anomalous  
17       result? Does it have anything to do with the actual  
18       operation of the equipment?

19          THE WITNESS: Well, I don't believe that  
20       there is an operational explanation precisely because,  
21       as I mention on page 90 of the testimony, in this case  
22       the effect runs counter to the known mail flows. That  
23       is, mail flows down from outgoing to incoming  
24       operations, but the cost effect that is in this  
25       anomaly is operating in the reverse direction.

1           The feature of the model that permits the  
2           interaction term is that it involves estimating a lot  
3           more parameters than the DBCS models using separate  
4           equations for incoming and outgoing, and it's possible  
5           that some cross correlation between the explanatory  
6           variables affects estimation in some hard to predict  
7           way.

8           You can't eliminate that it's a byproduct of  
9           a statistical issue called multicollinearity where  
10          when you have a large number of interrelated  
11          regressors in an econometric model that some  
12          coefficients get imprecisely estimated, and those feed  
13          into the anomalous variability results.

14          Generally for the Postal Service's  
15          recommended models multicollinearity is not a problem  
16          as indicated by absence of anomalous results and  
17          reasonable standard errors in my view on the  
18          estimates.

19          In a particular model that's not necessarily  
20          the case for alternative models that make much more  
21          extensive demands of the MODS data.

22                 COMMISSIONER GOLDWAY: Thank you.

23                 CHAIRMAN OMAS: Is there anyone else?

24                 (No response.)

25                 CHAIRMAN OMAS: There being none, counsel,

1 would you like some time with your witness?

2 MR. HESELTON: Yes. Thank you very much,  
3 Mr. Chairman. I would. About five minutes?

4 CHAIRMAN OMAS: Fine. Let's say we'll take  
5 10, and we'll come back at 11:20.

6 (Whereupon, a short recess was taken.)

7 CHAIRMAN OMAS: Mr. Heselton?

8 MR. HESELTON: Mr. Chairman, the Postal  
9 Service has no redirect.

10 CHAIRMAN OMAS: Mr. Bozzo, that completes  
11 your testimony here today. We appreciate your  
12 contribution and your appearance, and you are now  
13 excused.

14 THE WITNESS: Thank you, Mr. Chairman.

15 CHAIRMAN OMAS: Thank you very much.

16 (Witness excused.)

17 CHAIRMAN OMAS: This concludes today's  
18 hearing. We will convene tomorrow morning at  
19 9:30 a.m. when we will receive testimony from Postal  
20 Service Witness McCrery.

21 Thank you very much. Have a good afternoon.

22 (Whereupon, at 11:21 a.m. the hearing in the  
23 above-entitled matter was adjourned, to reconvene at  
24 9:30 a.m. on Thursday, August 17, 2006.)

25 //



REPORTER'S CERTIFICATE

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I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Postal Rate Commission

Date: 8/16/06

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